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ILLITERACY IN THE SEVERAL COUNTRIES OF THE WORLD

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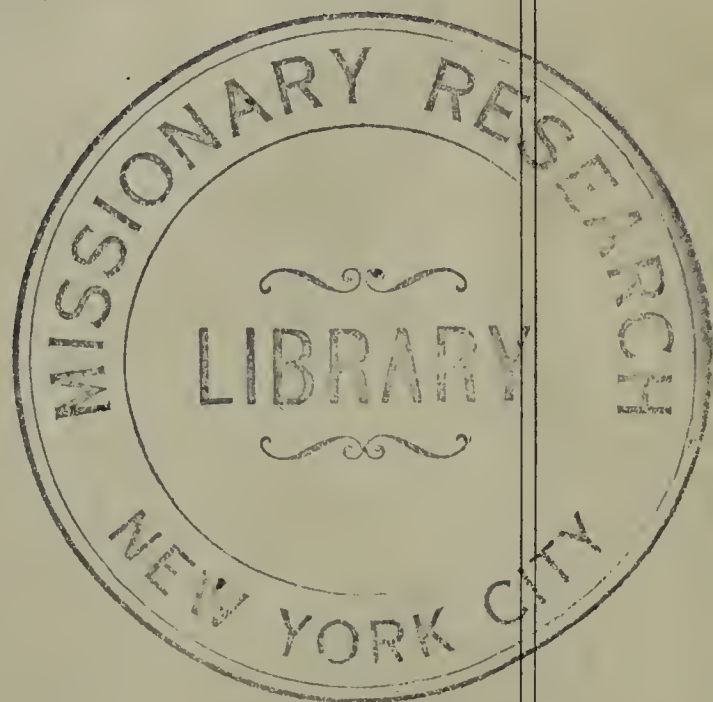
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CONTENTS

	Page
Introduction.....	vi
Chapter I.—Statistics of illiteracy.....	1
Value of the data.....	1
Nature of the data.....	1
Census data; criteria.....	2
Inclusion of racial groups.....	2
Accuracy of the census.....	3
Age limits of illiteracy.....	3
Forms of reporting.....	3
Making data comparable.....	4
Indices for different age groups.....	5
Graphic presentation.....	6
Sources of the data.....	6
Chapter II.—Areas of least illiteracy.....	7
Australia.....	11
Belgium.....	11
Canada.....	12
Canal Zone.....	13
Czechoslovakia.....	13
Denmark.....	13
England and Wales.....	13
France.....	14
Irish Free State.....	15
Japan.....	15
Netherlands.....	15
New Zealand.....	16
Norfolk Island.....	16
North Ireland.....	16
Norway.....	16
Territory of Papua.....	17
American Samoa.....	17
Scotland.....	17
Sweden.....	17
Switzerland.....	18
Union of South Africa.....	18
United States.....	19
Chapter III.—Political divisions with illiteracy rates between 10 and 50 per cent.....	20
Estonia.....	24
Hawaii.....	24
Hungary.....	24
Territory of New Guinea.....	24
Alaska.....	25
Argentina.....	25
Guam.....	25

Chapter III.—Political divisions with illiteracy rates, etc.—Continued.	Page
Italy	26
Latvia	26
Newfoundland and Labrador	26
Virgin Islands	27
Cuba	27
Finland	28
Lithuania	28
Poland	29
Uruguay	30
Yugoslavia	30
Bulgaria	30
Chile	31
Jamaica	32
Colony of the Leeward Islands	32
Rumania	32
Spain	33
Chapter IV.—Political divisions with population over half illiterate	34
Ceylon	37
Colombia	38
British Guiana	38
British Malaya	38
Mexico	39
Philippine Islands	40
Porto Rico	40
Union of Socialist Soviet Republics	40
Brazil	42
Nicaragua	42
Portugal	43
Venezuela	43
Dominican Republic	44
Guatemala	44
Dutch East Indies	44
Egypt	45
India	46
Union of South Africa	47
Chapter V.—Summary of data presented and of areas for which adequate data are not given	48
Areas for which data are not given	49
Asia	49
Africa	49
South America	50
Oceania	50
North America	50
Europe	50
Chapter VI.—Is illiteracy decreasing?	57
Factors promoting the spread of literacy	57
Belief in popular education	58
Readjustment of national boundaries	59
Education of minorities	59
Education of women and girls	60
Statistical data	60
Europe	60
Africa	61

Chapter VI.—Is illiteracy decreasing?—Continued.	Page
Asia.....	61
Oceania.....	62
North America.....	62
South America.....	63
Chapter VII.—Illiteracy and age groups.....	64
The educational inventory.....	64
Bulgaria.....	65
Spain.....	67
Comparative indices.....	68
The “can write” groups.....	68

TABLES

	Page
1.—Percentages of illiteracy for different age groups in 15 countries, ascertained by the census.....	5
2.—Political divisions which report less than 10 per cent illiteracy.....	10
3.—Political divisions having an illiteracy rate between 10 and 49.9 per cent listed in groups of 10 per cent range.....	22
4.—Political divisions having an illiteracy rate between 50 and 100 per cent, listed in groups of 10 per cent range.....	36
5.—Distribution by age groups of literates (can read and write) in Bulgaria, census of December 31, 1920.....	65
6.—Percentages of population and degrees of instruction for different age groups in Spain, census of 1920.....	67

MAPS

Maps showing political divisions by indices of illiteracy:	Page
North America.....	52
Europe.....	53
Asia.....	53
South America.....	54
Africa.....	55
Oceania.....	56

INTRODUCTION

The main purpose in preparing this bulletin is to assemble so far as practicable and publish in brief form such official statistics as are available on illiteracy in the various countries of the world, to tell where those data may be found, and if possible, to give a general estimate of world-wide illiteracy.

Incidental to this purpose, it becomes necessary to show the high percentage of the world's population for which statistics of illiteracy are not gathered; to indicate the unreliability of many of the popularly quoted statistics; and to voice the need for common criteria in determining what illiteracy is and the age groups to which they should apply, in order that the data may be more comparable and a truer picture of the status of illiteracy may be possible.

The schedules for the censuses of the countries of the world of 1930 and thereabouts will soon be arranged. It is hoped that the various kinds of data here presented will, to some extent, help the makers of those schedules to arrange schemes for collecting and reporting that are more nearly common to all countries, so that by 1935 the figures may be presented more clearly, definitely, and comprehensively.

ILLITERACY IN THE SEVERAL COUNTRIES OF THE WORLD

CHAPTER I

Statistics of Illiteracy

Value of the data.—Illiteracy statistics form one of the several indices used in the science of demography to measure roughly the degree of a people's culture. They indicate to a considerable extent the effectiveness of its school system, the pride which the race in question takes in its language and literature, and its determination to open to all its citizenry the medium of written communication. They reflect the national attitude toward the education of women, indigenous peoples, and minority groups; the enforcement of compulsory education laws; and the general progress of educational policies. They are of use to the administrator in formulating policies of government. They are in a definite sense an indication of a country's financial and economic status. They are a valuable supplement to the more detailed and more frequently gathered statistics of education published annually or biennially by most countries.

Nature of the data.—When given world-wide application, illiteracy statistics as they are at present gathered and reported, are very unsatisfactory for several reasons. First, they are often based on unreliable indices. The per cent of persons signing the marriage register by mark is the index used in England and Wales, the Irish Free State, North Ireland, Scotland, the Netherlands, Switzerland, and Uruguay. This is obviously inaccurate as a measure of literacy. It applies almost wholly to persons over 18 years of age; and in the countries named, with a total of about 59,000,000 of people, to less than 2 per cent of the population—much too small a group from which to draw deductions for the whole. Moreover, many persons who can and do sign their names mechanically have no real knowledge of reading and writing.

Again, the per cent that can neither read nor write among the conscripts, or army recruits, or those liable to military service, forms the basis of illiteracy statistics in Sweden, Japan, Argentina, and the Soviet Union. This also can not be accurate since it applies to a

comparatively small number, to those that have reached their majority, and to only one sex.

The per cent of illiterates as reported in France for the years of four consecutive censuses among the newly married, conscripts, and persons 10 years of age and over, show the considerable discrepancy between the first two of these and the data taken carefully at a census.

Discrepancies in illiteracy data obtained by different methods in France

Year of census	Per cent of illiterates among newly married	Per cent of illiterates among conscripts	Per cent of illiterates among those 10 years of age and over, by census
1901.....	5.0	5.63	16.5
1906.....	3.5	5.15	12.4
1911.....	2.4	4.26	¹ 12.8
1921.....		4.07	8.2

¹ 15 years of age and over.

In 1924 when the figures for the conscripts were obtained by an actual examination of the men when they reported to the corps, instead of accepting the statements of the mayors, as had been done previously, the percentage was 8.89 as against 3.51 in 1922.

In the years 1918 to 1922, inclusive, among 130,944 Europeans in the Union of South Africa contracting marriage, 0.52 per cent signed the marriage register by mark. The census of 1918 showed 2.08 per cent of the Europeans 10 years of age and over as unable to read and write.

Census data—Criteria.—Figures gathered at organized national censuses are the most desirable, but they are not to be had for about half the population of the world. When they are obtainable, they are too often incomparable because the definitions of the term “illiteracy” and the ages to which they apply vary greatly. Among the criteria for determining illiteracy are: “Can not read”; “can not read and write”; “can not read or write”; “can not write in any language, regardless of ability to read”; “can not write a short letter to a friend and read the answer”; and “can not read and write a short letter.”

To the casual thinker the difference between “can not read” and “can not read and write” may seem negligible, but in the Philippine Islands 214,989, or approximately 25 per cent of the persons who can read Spanish can not write it. The same is true of 199,754 in Spain. In continental United States 448,340, or 9.1 per cent, of the illiterates can read but not write. More than 420,000 persons in Lithuania can read but can not write. Many other examples may be cited.

Inclusion of racial groups.—Another source of incomparability lies in the varying practices with regard to including certain racial groups or indigenous peoples. The illiteracy rate of 6 per cent for the main-

land of the United States applies to all persons 10 years of age and over, whether they are native or foreign born, Caucasian, Asiatic, Negro, or Indian. The rate of 4.2 per cent for Australia does not take into consideration an indigenous population of 59,000. Those for Papua and New Guinea apply to very small groups of resident Europeans; native peoples numbering half a million or more are not in the computations. Indigenous people are excluded from the reports for British Guiana, Colombia, Venezuela, and some additional American countries, while they are included for others, notably Mexico, Brazil, and Guatemala. In the census of the Philippine Islands the literacy status of nearly a million people of foreign birth and of so-called "non-Christians" was disregarded. The returns from the Dutch East Indies are comprehensive, including alike natives, Europeans, and foreign Asiatics. Those from Japan do not include about 21,000,000 of people in Chosen, Taiwan, and Karafuto.

Accuracy of the census.—In the actual census taking the care and thoroughness with which the enumerators do their work differs considerably. The declaration of the person as to his ability to read and write is generally accepted, and the result is unquestionably a higher per cent of literacy recorded than the actual conditions warrant. In the Army psychological testing carried on among the drafted men in the United States in 1918, out of 1,552,256 recruits, 24.9 per cent were sent to the beta examination, an intelligence test devised especially for illiterates, as being in general unable "to read and understand newspapers, and write letters home,"¹ though the census taken two years later showed an illiteracy rate of less than one-fourth that found in the testing. The difference is due to the higher standards of the tests and the greater care taken in applying them. As between the illiteracy rates published for the United States and those for India, the latter are undoubtedly more reliable. The definition of literacy in India sets a higher standard and in its very nature requires a more careful application. (See page 46.)

Age limits of illiteracy.—The age groups to which the criteria for illiteracy are applied include 5, 6, 7, 8, 10, or 15 years of age and over, and all ages or the total population. In the Spanish-speaking countries the percentage is usually computed on the total population. In the United States and its outlying parts, Canada, India, and several other countries, the grouping is 10 years of age and over. The most commonly used application is to 5 years of age and over.

Forms of reporting.—Data gathered under like criteria and for the same age groups are now reported in many different forms, depending on the will or judgment of the director in charge. As great a need exists for uniform methods of reporting as exists for similar criteria.

¹ National Academy of Sciences. Vol. XV. Psychological examining in the United States Army. Edited by Robert M. Yerkes.

Making data comparable.—Sources of incomparability due to differences in thoroughness of census taking will always be. They may be lessened but not eliminated. Those due to differences of definition and the exclusion of some races can be removed by an agreement among political divisions to adopt and use the same criteria and include all races. Those due to differences in age groupings may be overcome by adopting a common standard, or they may be made to yield to mathematical treatment and give results that must be reasonably near to the exact. Often the reports contain related statistics that may be used to interpret the illiteracy rate, if given for one age group, in terms of that for another.

In the aggregate, children under 5 years of age are illiterate, and a rate given for all ages may be changed to that for the population 5 years of age and over by the simple process of subtracting the per cent (if it is known) of the population under 5 years of age from the illiteracy rate and also from 100, and dividing the former remainder by the latter. If the per cent of the population under 5 years of age is not given, it is reasonable to use 12.03 per cent for European countries ² and 14.4 per cent for Latin-American countries.

Assume that 12 in every 100 persons in a given population are under 5 years of age. If the other 88 are all literate, including those under 5 brings the illiteracy rate up to 12 per cent; if they are all illiterate, including those under 5 makes no difference in the index of 100 per cent which applies to the 88 persons 5 and over.

As the number of illiterates among those 5 years of age and over increases by 1 in each 88, the difference in final result between including and excluding those under 5 years of age decreases by about 0.14 per cent. The following table shows the progressive change.

Change of per cent of illiteracy made by including or excluding persons under 5 years of age

Number of illiterates in each 88, 5 years of age and over	Per cent, if those under 5 years are included	Per cent, if those under 5 years are excluded	Difference in final result	Number of illiterates in each 88, 5 years of age and over	Per cent, if those under 5 years are included	Per cent, if those under 5 years are excluded	Difference in final result
1	2	3	4	1	2	3	4
0.....	12	0.0	12.0	8.....	20	9.09	10.91
1.....	13	1.13	11.87	9.....	21	10.23	10.77
2.....	14	2.27	11.73	10.....	22	11.36	10.63
3.....	15	3.4	11.6	25.....	37	28.41	8.59
4.....	16	4.54	11.5	50.....	62	56.81	5.19
5.....	17	5.68	11.32	75.....	87	84.75	2.25
6.....	18	6.81	11.19	88.....	100	100.0	0.0
7.....	19	7.95	11.05				

By the above table, if the per cent of illiteracy for the total population is 37, then 25 in every 88 persons 5 years of age and over are illiterate and the rate among them is 28.41 per cent, a reduction of 8.59 per cent brought about by excluding those under 5 years of age.

² Whipple, George Chandler. Vital statistics. An introduction to the science of demography. New York, 1919.

The data gathered at the census of 1920 for Spain show the proportion of persons under 5 years of age and the illiteracy (can not read) rate for the total population to be 10.5 per cent and 52.2 per cent, respectively; that is, in every 895 persons 5 years of age and over, 417 or 46.59 per cent were illiterate; the census enumerators actually found it to be 46.6 per cent. Illiteracy among the Bantus of the Union of South Africa is 90.3 per cent based on the total population. The age distribution is not known. Excluding 12 per 100 as being under 5 years of age, the illiteracy rate is 89 per cent, the reduction in this case being only 1.3 per cent. By such a process as this, illiteracy data when given for a total population may be changed to a fair approximation for those 5 years of age and over.

Expressing either of the rates just considered in terms of that for the population 10 years of age and over is a more complicated process, and more subject to error since many children under 10 will know how to read and write. The same general principle will apply. The smaller the illiteracy rate for the total population, the greater will be the reduction by excluding those in the lower ages.

Indices for different age groups.—Differences in rates for the same country when different age groups are considered are shown for 15 countries in Table 1. These illiteracy rates were ascertained by actual census taking, not by computation. While no general formula for expressing the index for the total population or for that 5 years of age and over in terms of an index for the population 10 years of age and over may be deduced from the table, it gives a fair idea of the result that may be expected.

TABLE 1.—*Percentages of illiteracy for different age groups in 15 countries, ascertained by the census*

Political division	Per cent for total popula- tion	Per cent for 5 years of age and over	Per cent for 10 years of age and over	Per cent for popu- lation 5 to 9 years, in- clusive
1	2	3	4	5
Belgium.....	16.9	10.7	¹ 7.9	-----
Brazil.....	75.5	-----	² 64.9	-----
Bulgaria.....	55.54	50.47	46.75	73.0
Canada.....	-----	10.0	5.7	37.2
Ceylon.....	65.8	60.1	-----	-----
Dutch East Indies.....	95.7	-----	² 94.8	-----
Estonia.....	-----	³ 12.66	10.8	⁴ 41.94
France.....	-----	9.25	8.2	22.7
Guatemala.....	89.5	88.82	-----	-----
India.....	92.8	91.8	90.5	97.9
Latvia.....	-----	⁵ 25.7	21.17	⁶ 71.02
New Zealand.....	-----	4.94	1.6	28.68
Portugal.....	70.9	67.66	-----	-----
Spain.....	52.2	46.6	42.7	73.6
Union of South Africa.....	23.2	³ 5.43	2.76	-----

¹ 8 years of age and over.

² 15 years of age and over.

³ 7 years of age and over.

⁴ 7 to 9, inclusive.

⁵ 6 years of age and over.

⁶ 6 to 9, inclusive.

Graphic presentation.—In any brief presentation of the illiteracy situation in the world, the devices of tabular arrangement and graphic illustration are well-nigh essential. They have the advantage of showing much material in compact form so that it may be quickly grasped. They are distinctly disadvantageous if they suggest comparisons where none exist. While it is not possible in the present condition of statistics on illiteracy to list the political divisions in an order of rank based on fine measures, it is possible by taking into consideration the different criteria and age groupings to arrange them roughly in groups of 10 per cent range each, and to some extent show their relative status.

Accordingly, that has been done and the tables in the following chapters list the political divisions in which the per cent of illiteracy by the best evidence at hand is less than 10; 10 to 19.9; 20 to 29.9; etc. In each case the name of the political division, the per cent of illiteracy, the criteria under which that percentage is obtained, the number of persons in the age or selected group to which those criteria apply, the per cent which that group is of the total population, the total population, and the source of the total population figures, are given. These items are selected out of the very large number that may be used, because they offer the few facts necessary for a grasp of the situation, and also afford to students of illiteracy and illiteracy statistics the bases for a wide range of comparisons.

Sources of the data.—In gathering the evidence presented the figures to be found in the official reports of the national censuses taken during or about the year 1920 were chosen first as the latest, best, and most nearly correct obtainable. Figures antedating 1916, except as an occasional check and in the section dealing with relative increases and decreases, are omitted. While general statistics on illiteracy will probably not soon be available until well past the middle year of any decade, those over 10 years old are not of much value in showing the condition of affairs at the beginning of a decade. Where the data are lacking in the census reports, the official marriage registers, conscription records, etc., have been used though the many sources of error in them are fully appreciated. The statements of observers that seem to be competent and impartial are quoted in a few instances. Finally the statistical reports on education are sometimes referred to in verification of the data on illiteracy.

Considerable care has been taken to make the main features of this report as complete as possible. The large libraries at hand were searched thoroughly. When it seemed necessary, inquiries were directed to foreign governments and to well-established statistical bureaus abroad. If any important data have been omitted the Bureau of Education will be glad to know of it.

CHAPTER II

Areas of Least Illiteracy

The area of least illiteracy in the world is in western Europe and, for the most part, along the shores of the North and Baltic Seas. Denmark, Norway, Sweden, and Switzerland claim to have little or no illiteracy among their peoples. Though the indices on which those claims are based are unreliable, the claims are not far from correct. Among the foreign born 10 years of age and over in Canada, the census of 1921 showed 11,352 Danes, of whom 1.74 per cent were unable to read and write; 43,025 Norwegians, 1.4 per cent; 38,175 Swedes, 2.67 per cent; and 4,595 Swiss, 1.52 per cent.¹ The literacy quality of the emigrants serves as a check on the rates given for the mother countries.

All these four nations, each comparatively small in area and population, have strong school systems, and both public opinion and law require that the children attend. With the exception of Switzerland, their peoples are homogeneous and, while there are three racial divisions of Switzerland, each division is comparatively pure within itself. All are in only a slight degree subject to immigration. All have maintained national governments long enough to be responsible for the status of literacy within their borders.

Closely bordering on this section of little or no illiteracy are Belgium, Czechoslovakia, England and Wales, Finland, France, the Irish Free State, the Netherlands, North Ireland, and Scotland, with small percentages of their citizenry that can not, at least, read and write. Czechoslovakia is a recently established national entity. Its literacy rate is still affected by the former rule of Austria-Hungary.

Most of these countries, like the four previously mentioned, are giving of their human wealth to others by emigration rather than receiving it by immigration. Of 24 European divisions, Ireland stands highest (30.5 per cent) in the per cent which its native-born living overseas is of the population of the mother country. Norway (14.8 per cent), Scotland (14.1 per cent), and Sweden (11.2 per cent), are second, third, and fourth, respectively; England and Wales are seventh; and Denmark eighth. They are in general above the median per cent of emigration.²

¹ Dominion of Canada. Dominion Bureau of Statistics. Illiteracy and school attendance in Canada. A study of the census of 1921, with supplementary data. Ottawa, 1926.

² Census of the population of the Irish Free State on April 18, 1926. Preliminary report. Dublin, Stationery Office, 1926.

Australia, Canada, New Zealand, and the United States of America have populations predominantly European or the descendants of Europeans. They are, or have been until a short time ago, subject to a considerable influx of immigrants. Their literacy rates are the products not of their own schools alone, but of those of several other countries. Native whites in the United States are 2 per cent illiterate; foreign-born, 13.1 per cent. The Canadian-born of Canada are 4.8 per cent illiterate; the British-born, 0.76 per cent; and the foreign-born, 12.11 per cent.

The United States is the only nation with more than 100,000,000 inhabitants that has a rate of less than 10 per cent, and that rate, it must be remembered, includes all races within the continental borders.

The European peoples in the Union of South Africa, Papua, and Malaysia have carried with them their belief in education; have established schools for their own children; and are extending schemes for school training to the indigenous populations.

The Canal Zone, Norfolk Island, and Samoa are strategic military and trading points that are held and manned by the peoples of literate nations.

Japan is the only oriental nation that has deliberately and by its own efforts reduced its illiteracy rate on the central islands to a western European level and has done so in a surprisingly short time, about one generation. The very low rate (0.88 per cent) given in the table is not entirely borne out by census figures for Japanese in other countries; those in Canada are 20.4 per cent illiterate; those in the United States, 11 per cent.

The 22 political divisions each of which reports an index of less than 10 per cent are listed in Table 2, page 10. Their population, as shown by column 6, is 312,094,449. This is the total for which some form of illiteracy statistics was obtainable. To this must be added the figures for Eupen and Malmedy, and the aboriginal groups in Australia, New Zealand, and Papua (in all 422,994) as indicated in the footnotes to the table, making a combined population of 312,517,443, or 17.17 per cent of the 1,820,000,000 estimated as the population of the earth about 1920. The combined area is 11,110,995 square miles, or a little more than one-fifth (21.3 per cent) of the earth's land area, estimated at 52,000,000 square miles, exclusive of uninhabited polar regions.

As to absolute number of illiterates, the reports are: Australia, 220,100; Belgium, 515,308; Canada, 341,019; Canal Zone, 751; Czechoslovakia, 866,048; France, 2,657,271; New Zealand, 47,315; Norfolk Island, 40; Papua (Europeans), 148; American Samoa, 239; Union of South Africa (Europeans), 40,241; and the United States, 4,931,905. The total is 9,620,385 for the 12 countries named. Denmark, England and Wales, the Irish Free State, Japan, the Nether-

lands, North Ireland, Norway, Scotland, Sweden, and Switzerland—countries for which unreliable indices were used—must have at least 600,000. Eupen and Malmedy and the aboriginal groups mentioned above may be estimated as having 250,000 illiterates. This group of political divisions includes in its population approximately ten and one-half millions of persons 10 years of age and over that can not read and write.

The countries are named in alphabetical order in the hope that the reader will not draw hasty conclusions as to relative rank based on small percentages, or even fractions of a per cent worked out from data that are at best only partially comparable. Following the table is a short discussion, including references, for each political division.

TABLE 2.—Political divisions which report less than 10 per cent illiteracy

Political division	Per cent of illiteracy	Definition on which the per cent is based	Number of persons in the class to which that per cent applies	Per cent which that class is of total population	Total population	Source of total population data ¹
1	2	3	4	5	6	7
Australia.....	4.7	5 years of age and over, can not read and write.....	4,748,886	87.3	² 5,435,734	Census of Apr. 4, 1921.
Belgium.....	7.9	8 years of age and over, unable to read and write.....	6,522,890	88.0	³ 7,406,299	Census of Dec. 31, 1920.
Canada.....	5.1	10 years of age and over, unable to read.....	6,682,072	76.0	8,788,483	Census of June 1, 1921.
Canal Zone.....	5.7	10 years of age and over, unable to write.....	13,285	74.0	17,964	Census of 1920.
Czechoslovakia.....	7.02	7 years of age and over, unable to read and write.....	12,345,157	90.7	13,613,172	Census of Feb. 15, 1921.
Denmark.....	.1	Of school age and over, can not read and write.....	-----	-----	3,267,831	Census of Feb. 1, 1921.
England and Wales.....	.34	Signing the marriage register by mark, 1924.....	592,832	1.5	37,866,699	Census of June 20, 1921.
France.....	8.2	10 years of age and over, can not read and write.....	32,437,091	82.7	39,209,518	Census of Mar. 6, 1921.
Irish Free State.....	2.0	Signing the marriage register by mark, 1923.....	31,264	1.05	2,972,802	Census of Apr. 18, 1926.
Japan.....	.88	Conscripts of 1925, could not write and figure.....	521,991	.87	⁴ 59,736,822	Census of Oct. 1, 1925.
Netherlands.....	.315	Signing the marriage register by mark, 1918.....	99,054	1.4	6,865,314	Census of Dec. 31, 1920.
New Zealand.....	4.9	5 years of age and over, can not read and write.....	966,128	87.8	⁵ 1,099,449	Census of Oct. 15, 1916.
Norfolk Island.....	6.3	5 years of age and over, unable to read or write.....	634	88.4	717	Census of Apr. 4, 1921.
North Ireland.....	2.1	Signing the marriage register by mark, 1923.....	15,948	1.2	1,256,322	Census of Apr. 18, 1926.
Norway ⁶	⁷ 7.8	5 years of age and over unable to read and write.....	-----	-----	2,649,775	Census of Dec. 1, 1920.
Territory of Papua (Europeans).....	4.2	10 years of age and over can not write.....	1,881	90.0	2,078	Census of Apr. 4, 1921.
Samoa (U. S.).....	.29	Signing the marriage register by mark, 1923.....	5,683	70.5	8,056	Census of 1920.
Scotland.....	.24	Liable to military service, 1921-22, can not read and write.....	70,400	1.4	4,882,497	Census of June 20, 1921.
Sweden.....	.39	Signing the marriage register by mark, 1906 to 1910.....	-----	-----	5,904,489	Census of Dec. 31, 1920.
Switzerland.....	2.08	10 years of age and over, can not read and write.....	274,816	⁸ 8.3	3,880,320	Census of Dec. 1, 1920.
Union of South Africa (Europeans).....	6.0	10 years of age and over, unable to write in any language.....	1,036,729	73.1	⁹ 1,418,060	Census of 1918.
United States.....	-----	-----	82,739,315	78.2	¹⁰ 105,710,620	Census of 1920.

¹ Unless otherwise stated, the date is that of the latest organized census.² Exclusive of full-blood aboriginals, estimated at about 60,000.³ Not including Eupen and Malmedy, with 60,213 people.⁴ Not including Chosen, 17,264,199; Taiwan, 3,655,308; and Karafuto, 203,754. See page 15.⁵ Not including 52,781 Maoris.⁶ Practically no illiteracy. See page 16.⁷ Applies to the small European population only. Natives estimated at 250,000 not included.⁸ Based on the population of 1910, 3,314,000.⁹ Europeans only; for illiteracy among the Bantus, see pages 36 and 47.¹⁰ Not including outlying parts.

Australia.—The information in respect to education collected at the census in Australia never amounted to more than a statement as to ability to read and write. The results are broadly a division of the population into three main groups: (1) Can not read; (2) can read, but can not write; and (3) can read and write. Group 1 is mostly children. Group 2 is comparatively small. In 1921, 86,642 persons out of a total population of 5,435,734 did not give the required information.

Education data were gathered at the census of April 4, 1921. Compared with those of April 3, 1911, they are:

*Education of population in Australia*¹

(Exclusive of about 60,000 full-blood aboriginals)

Particulars	April 4, 1921			Apr. 3, 1911	Increase in 10 years
	Men	Women	Total	Total	
Can not read:					
Under 5 years of age.....	305, 522	294, 684	600, 206	525, 633	74, 573
Over 5 years of age.....	114, 573	91, 015	205, 588	139, 749	65, 839
English language:					
Read and write.....	2, 278, 768	2, 234, 641	4, 513, 409	3, 650, 030	863, 379
Read only.....	6, 578	6, 972	13, 550	15, 009	1, 459
Foreign language only:					
Read and write.....	12, 704	2, 673	15, 377	26, 210	10, 833
Read only.....	591	371	962	2, 647	1, 685
Not stated.....	44, 134	42, 508	86, 642	95, 727	9, 085
Total.....	2, 762, 870	2, 672, 864	5, 435, 734	4, 455, 045	980, 729

¹ Census of the Commonwealth of Australia, Apr. 4, 1921. Census Bulletin No. 18. Summary for the Commonwealth of Australia. Prepared by Chas. H. Wickens, Commonwealth statistician, Melbourne.

Computing the more important percentages from the table by disregarding the children under 5 years of age and those from whom the information was not obtained, a total of 4,748,886 persons remains, for which the following data are applicable:

Per cent of literacy of population over 5 years of age, Australia

Particulars	Number of persons	Per cent
Can not read:		
Under 5 years of age.....	600, 206	100
Over 5 years of age.....	205, 588	4.3
English or a foreign language:		
Read and write.....	4, 528, 786	95.3
Read only.....	14, 512	.4

The illiteracy rate among persons 5 years of age and over is 4.3 per cent or 4.7 per cent, according whether the criterion is ability to read or ability to read and write.

Belgium.—The basis of illiteracy statistics is the census return rendered by the head of each family, normally every 10 years. Lit-

eracy is defined as knowing how to read and write, and all persons not having that knowledge are considered to be illiterates. The literates amounted in 1920 to 6,156,181 out of a population of 7,406,299, or 83.1 per cent.³ This applies to the total population. Leaving out of consideration the children younger than 5 years of age, the percentage becomes 89.3; leaving out those younger than 8 years of age, it is 92.1 per cent; and if one deducts those younger than 15 years of age, it is 96.7 per cent.

The following table gives by sex and age groups the absolute numbers and percentages of persons knowing how to read and write as determined by the census of 1920:

Literacy by sex and age groups in Belgium

Age groups	Persons		Percentages		
	Men	Women	Men	Women	Total
From 8 to less than 15 years.....	439, 788	447, 473	91. 1	93. 1	92. 1
From 15 to less than 20 years.....	349, 838	354, 009	96. 1	97. 4	96. 7
From 20 to less than 25 years.....	329, 218	333, 437	96. 3	96. 7	96. 5
From 25 to less than 30 years.....	281, 596	296, 408	96. 4	96. 1	96. 2
From 30 to less than 40 years.....	514, 384	524, 806	95. 4	94. 9	95. 1
From 40 to less than 50 years.....	447, 319	448, 805	93. 6	92. 2	92. 9
From 50 to less than 60 years.....	322, 918	323, 081	90. 9	87. 0	89. 0
From 60 to less than 70 years.....	188, 818	197, 528	86. 3	78. 9	82. 3
70 years and over.....	97, 906	110, 248	77. 6	67. 4	71. 9

Canada.—In the process of taking the sixth census of Canada in June, 1921, information was collected under two headings: (1) “Can read,” and (2) “Can write”—and the instructions were:

If the person can read in any language, the question will be answered in the proper column by writing “Yes,” and by “No” if unable to read.

If the person can write in any language the question will be answered in the proper column by “Yes,” and by “No” if unable to write.

The abstract of the census ⁴ gives some illiteracy data for the population 5 years of age and over in order to make certain comparisons with previous censuses, but in the main the field of illiteracy is fixed at 10 years of age and over, and computations are made on that basis. In 1921 the percentage of all persons over 10 years of age not knowing how to read, including Indians, was 5.1 per cent. If the standard of the United States, inability to write in any language, is applied, the percentage is 5.7 per cent.

The data for the total population of 8,788,483 are summarized as follows:

³ *Annuaire statistique de la Belgique et du Congo Belge. Cinquante-troisième année, 1923-24. Bruxelles, Imprimerie Lesigne, 1926.*

⁴ *Sixth census of Canada, Bulletin XVIII. Published by authority of the Hon. Thomas A. Low, Minister of Trade and Commerce. R. H. Coats, Dominion statistician, Dominion Bureau of Statistics, Ottawa. E. S. MacPhail, chief statistician for population.*

Literacy and illiteracy in Canada

Particulars	5 years of age and over	10 years of age and over
Number of persons.....	7, 730, 833	6, 682, 072
Can read and write.....	6, 957, 412	6, 298, 704
Per cent.....	90	94. 26
Can read only.....	58, 254	42, 349
Per cent.....	. 75	. 64
Can not read nor write.....	715, 167	341, 019
Per cent.....	9. 25	5. 10

Of the 110,814 Indians included above, 80,037 are 10 years of age and over, and 41,695, or 52.09 per cent of them, are illiterate.

The reader will note that, in this population with a high degree of literacy, the exclusion of persons 5 to 9 years of age, inclusive, lowers the illiteracy rate 4.26 per cent.

Canal Zone.—The definition of illiteracy is that commonly used in census taking in the United States. The population is 54.1 per cent white; 45.6 per cent negro; and 0.3 per cent of other colored races. There is no illiteracy among the native whites; 1.9 per cent among the foreign-born whites; and 10.2 per cent among the negroes.

The low per cent of illiteracy in the Canal Zone is due in part to an excellent school system and in part to the fact that the occupations of the zone are of a kind for which the ability to read and write are important.⁵

Czechoslovakia.—The census of 1921 has, it is true, established that in Czechoslovakia there were only 7.02 per cent illiterates. Nevertheless, Slovakia had 14.71 per cent and Subcarpathian Russia 50.03 per cent, while in Bohemia there were only 2.1 per cent, in Moravia 2.65 per cent, and in Silesia 3.12 per cent.⁶

Denmark.—School attendance for children between the ages of 7 and 14 was made compulsory in Denmark as early as 1814. The law is enforced by a system of fines. It has now been in effect for 113 years, and the nation has not more than two-tenths of 1 per cent of its children without instruction and not more than one-tenth of 1 per cent illiteracy among those past the first two or three years of school age. Education, besides being compulsory, is to a large extent free. During the World War the paternal activity of the State even included two free meals a day to all school children.

England and Wales.—The register general for England and Wales reports that in 1924, in 296,416 marriages registered, 995 men and 1,041 women signed with marks. The per cent of illiteracy (0.34 per cent) may be far from correct, since it is based on only 1.5 per cent of the population and to a restricted age group. In England and

⁵ Fourteenth census of the United States, 1920. Population: Canal Zone. Washington, D. C., Bureau of the Census.

⁶ Šmok, Mikuláš. Organization de l'Enseignement en Tchécoslovaquie.

Wales approximately 7,588,000 persons, or about one-fifth of the total population, are attending organized schools. Illiteracy must be small in amount, but not so small as this imperfect index indicates.

France.—The degree of instruction under the headings: “Knowing how to read and write”; “Illiterates”; and “Degree of instruction not declared,” are reported from France for the censuses of 1901, 1906, 1911, and 1921.

Illiteracy in France in 1901 and 1906 ¹

Degree of instruction	1906		1901	
	Men	Women	Men	Women
Less than 10 years of age:				
Knowing how to read and write.....	1, 060, 058	1, 063, 744	1, 025, 281	1, 044, 673
Illiterate and not declared.....	2, 391, 436	2, 364, 206	2, 366, 043	2, 351, 943
10 years of age and over:				
Knowing how to read and write.....	13, 617, 277	13, 303, 770	13, 206, 564	12, 748, 069
Illiterates.....	1, 762, 319	2, 657, 173	2, 062, 802	3, 065, 497
Literacy not declared.....	268, 631	356, 039	256, 199	323, 717
Total.....	19, 099, 721	19, 744, 932	18, 916, 889	19, 533, 899

¹ Resultats statistiques du recensement général de la population effectué le 4 Mars, 1906. Tome I, Deuxième partie. Paris, Imprimerie Nationale, 1910.

Illiteracy in France in 1901 and 1911 ¹

Degree of instruction	1911	1901
Population less than 5 years of age.....	3, 464, 892	3, 574, 905
5 to 14 years:		
Knowing how to read and write.....	5, 241, 620	5, 078, 872
Illiterates.....	986, 587	1, 089, 917
Degree not declared.....	383, 446	271, 447
15 years and over:		
Knowing how to read and write.....	24, 863, 755	22, 876, 431
Illiterates.....	3, 660, 056	4, 930, 881
Degree of literacy not declared.....	508, 306	509, 539
Age not declared.....	83, 471	118, 796
Total.....	39, 192, 133	38, 450, 788

¹ Resultats statistiques du recensement général de la population effectué le 5 Mars, 1911. Tome I, Deuxième partie. Paris, Imprimerie Nationale, 1915.

Illiteracy in France in 1921 ¹

Degree of instruction	Men	Women
5 to 9 years of age:		
Knowing how to read and write.....	974, 324	990, 817
Illiterates.....	298, 032	280, 166
Degree of literacy not declared.....	231, 012	226, 930
Total.....	1, 503, 368	1, 497, 913
10 years of age and over and age not given:		
Knowing how to read and write.....	14, 241, 851	15, 537, 969
Illiterates.....	1, 056, 544	1, 600, 727
Illiteracy not declared.....	430, 751	530, 080
Total.....	15, 729, 146	17, 668, 776

¹ Bulletin de la statistique général de la France et du service d’observation des prix. Paraissant tous les trois mois. Tome XV, Fascicule IV, Juillet, 1926. Paris, Librairie Félix Alcan (Page 410.)

In 1901, out of 31,082,932 persons 10 years of age and over that gave the information, 5,128,299, or 16.5 per cent, could not read and write. On the same bases, in 1906 out of 30,746,168, there were 3,825,121 illiterates, or 12.4 per cent; and in 1921, out of 32,437,091 the illiterates numbered 2,657,271, or 8.2 per cent. The age group investigated in 1911 was 15 years and over, and the illiteracy rate was 12.8 per cent.

When these fairly exact figures are compared with those often quoted for the conscripts, the latter are shown to be much too low. (See page 5.)

Irish Free State.—Conditions in Ireland made it impracticable to take a census in 1921. The abstract of the census of March 22, 1926, is available for several items, but not as yet for education. According to the annual report (1923) of the registrar general for Saorstát Éireann, 2.6 per cent of the men and 1.4 per cent of the women in the Irish Free State signed the marriage register by mark.

Japan.—For Japan, statistics of illiteracy taken at an organized census are not available. Out of 521,991 conscripts called in 1925, 4,576, or 0.88 per cent, could not write and figure.⁷ The new education system of interior Japan has been in practice for a little more than 30 years. The school age of the Japanese child begins on the next day after reaching his sixth year and ends on the day when he completes his fourteenth year, the whole period covering a term of eight years. His schooling commences at the beginning of the first school year within the school age and may end with the conclusion of the elementary school course. In 1900, 80 per cent of all children of school age were in school; in 1910 the percentage had increased to 97; and in 1922 to a little more than 99. Among the older people there are some yet who are illiterate, but the number is few and the percentage small.

This does not apply to Chosen, where only about 2½ per cent of the seventeen and one-fourth millions of people are in school; to Taiwan, where about 7 per cent of the 3,655,000 inhabitants are attending school; or to Karafuto, where the pupils number 10 per cent of the 203,750 people. (See also page 3.)

Netherlands.—As early as 1840, W. E. Hickson, a visitor from England to the Netherlands, wrote:

There can be no hesitation about the universality of education in Holland. We were assured by Mr. Prinsen, the director of the Normal School at Haarlem, that in that town, containing 21,000 inhabitants, there was not a child of the age of six years unable to read; the proportion actually in school was one in seven of the whole population. But our belief on this subject does not rest on the statement of others, or upon official data, which there is often good reason for mistrusting, but upon our own personal observations. We found the smallest towns and the poorest villages in Holland as well provided with schools as the town of

⁷ Résumé statistique de l'empire du Japon. 41• Année. Tokyo, 1927.

Haarlem; and even on sandy moors, in the inland part of the country, in out-of-the-world sort of places, wherever a neighborhood existed in which 40 or 50 children could be discovered within the circuit of a mile, we found them collected in a school. Nor were these schools like our ordinary dame and charity schools; many of them being excellent, and all above mediocrity.⁸

Of the conscripts called out in 1923, 0.35 per cent could neither read nor write; the percentage was highest, 2.07 per cent, in Drenthe. Of the persons married in 1918, 0.22 per cent of the males and 0.41 per cent of the females could not sign the marriage certificate.⁹ The Dutch statistical bureau no longer publishes figures on illiteracy in the Netherlands.

New Zealand.—A quinquennial census is now taken regularly in New Zealand. Seventeen censuses were taken between 1851 and 1921, inclusive. Data for education were gathered at each one, but those for 1921 are not available. They are given in detail by age groups, provincial districts, the sexes, and metropolitan and suburban areas for the census of 1916.¹⁰

Education of population in New Zealand

Literacy	5 years of age and over		Under 5 years of age		From 5 to 9 years of age, inclusive		Age not specified	
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
Able to read and write.....	909,055	95.06	-----	-----	86,189	71.32	1,063	83.53
Able to read only.....	7,429	.77	-----	-----	3,162	2.62	10	.68
Can not read.....	39,886	4.17	132,055	100	31,491	26.06	96	15.79
Not stated.....	9,758	-----	-----	-----	1,976	-----	97	-----
Total.....	966,128	-----	132,055	-----	122,818	-----	1,266	-----

These figures include North Island, South Island, Stewart Island, and the Chatham Islands. Native Maoris (52,781) are not taken into consideration.

Norfolk Island.—The island had a population of 717 in 1921, and of these 634 were 5 years of age and over. Forty, or 6.3 per cent, could not read.¹¹

North Ireland.—In 1923, 2.2 per cent of the husbands and 2 per cent of the wives signed the marriage register by marks.

Norway.—The Bureau Central de Statistique at Oslo writes: “As the obligation to attend schools is compulsory, there is practically no illiteracy in Norway.”

⁸Hickson, W. E. An account of the present state of education in Holland, Belgium, and the German States, with a view to the practical steps which should be taken for improving and extending the means of popular instruction in Great Britain and Ireland. London, 1840.

⁹Statesman's Yearbook, 1925.

¹⁰Results of the census of the Dominion of New Zealand taken for the night of the 15th of October, 1916 Part V, Education. By Malcolm Fraser. Wellington, 1918.

¹¹Census of the Commonwealth of Australia, April 4, 1921. Census Bulletin No. 5. Territory of Norfolk Island. Prepared by the Commonwealth statistician, Melbourne.

Territory of Papua.—Papua has an area of 90,540 square miles. The native population of Papuans, Melanesians, and Negritos is estimated at 250,000. The number of nonindigenous people, mostly European, was 2,078 in 1921. Of these, 196 were under 5 years of age. Among those 5 years of age and over, 148, or 7.8 per cent, could not read. No illiteracy data are given for the native population.¹²

American Samoa.—American Samoa had in 1920 a population of 8,056, of which only 41 were white persons. Native Polynesians were 96 per cent; those of "mixed race" about 3 per cent. Ninety-six persons out of every 100 of the population 10 years of age and over were reported as able to read and write, a condition explained as "due largely to the educational zeal of the Christian missionaries who established schools in the Samoan villages as early as 1830."¹³ For the most part the ability to read and write is restricted to reading and writing in the English language.

Scotland.—The census schedule for Scotland, 1921, did not include an item on education. Estimates of illiteracy are based on the report of the register general of Scotland for 1923, which shows that in 35,200 marriages only 84 men and 122 women signed the marriage register with marks. To this may be added the statement:

Heated discussions as to the high education rate would be lessened by bearing in mind that Scotland is possibly not now so far ahead of other countries in national education as she was and our (England's) new educational arrangements have not yet had time to bear fruit. In Scotland few there are to-day who can not both read and write.¹⁴

Sweden.—The Kungliga Statistiska Centralbyrån writes:

No data regarding the number of illiterates in the whole population are gathered, either at a census or in any other way.

On the other hand, literacy is annually investigated among those liable to military service. In the educational year 1921–22 the result was as seen from the following table:

Literacy among those liable to military service in Sweden

Accomplishment	Reading	Writing
	<i>Per cent</i>	<i>Per cent</i>
Good accomplishment.....	63.13	38.27
Fairly well trained.....	36.75	61.49
Lacking knowledge to.....	.12	.24
Total.....	100.00	100.00

Accordingly, one finds that practically all who are liable to military service can read and write.

It is not known what proportion of illiteracy exists as between city and country people.

¹² Census of the Commonwealth of Australia, April 4, 1921. Census Bulletin No. 4. Territory of Papua. Prepared by the Commonwealth statistician, Melbourne.

¹³ Census of American Samoa. Bureau of the Census, Washington, D. C., 1920.

¹⁴ Bissett-Smith, George T. The census and some of its uses. Edinburgh, W. Green & Sons, Limited 1921

In the population as a whole illiteracy is likewise exceedingly small. This condition is not because of recent improvements in literacy, but has existed in our land for a long time. Compulsory education dates from 1842, when it was provided that each parish must have at least one school.

Switzerland.—The Swiss Federal Bureau of Statistics states:

In Switzerland no statistics exist with regard to the number of illiterate persons, owing to the fact that elementary education is compulsory and free of cost. On the other hand, the number of betrothed men and women who sign their marriage certificates with a cross is recorded. The number of such persons, covering the years 1906 to 1910, was: Males, 458 (0.33 per cent); females, 635 (0.46 per cent); out of a total of 137,408 marriages contracted. Of these illiterates, 413 men and 555 women were foreigners.

The majority of the illiterates were therefore foreigners, born in foreign countries, and mostly Italians. The few Swiss included in the above figures are Swiss people who have returned from foreign countries.

In any case, if speaking of illiterate Swiss, born and brought up in Switzerland, the figures of 0.02 which you mention, and the source of which is not known to us, would be naught in view of the strict application of the federal law concerning elementary instruction.

Union of South Africa.—By the census of May 3, 1921, the total population of 6,928,580 was 21.9 per cent European; 67.8 per cent Bantu; 2.4 per cent Asiatic; and 7.8 per cent mixed and other races. Data on illiteracy are given only for the Bantu in this census of 1921. The mark signatures at marriages among the Europeans are available for a number of years.¹⁵ For the years 1918 to 1922, inclusive, 130,944 persons among the Europeans contracted marriage, and of these 685, or 0.52 per cent, signed with a mark. In the last quarter of 1922, the schools enrolled 323,851 pupils, something more than one-fifth the European population.

The census schedule of 1918 contained three questions on education among Europeans. The first asked about ability to (1) read and write, (2) to read only, and (3) inability to read or write. The second asked whether either or both official languages were spoken. The third asked the nature of the instruction being received—at university, at school, or at home. The data secured in response to the first question are reported for the white population 7 years of age and over in urban and rural areas.¹⁶ They are also arranged for the group 10 years of age and over and compared with the censuses of 1904 and 1911.

¹⁵ Official Yearbook of the Union of South Africa and of Basutoland, Bechuanaland Protectorate, and Swaziland. Statistics mainly for the period 1910-1924. No. 7. J. E. Holloway, director of census and statistics. Pretoria, 1925.

¹⁶ Census of the European or white races of the Union of South Africa, 1918, Final report and supplementary tables. Presented to Parliament. Cape Town, 1920.

Literacy of white population 7 years of age and over, and 10 years of age and over in the Union of South Africa

Particulars	7 years of age and over		10 years of age and over					
	1918		1918		1911		1904	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Read and write.....	1, 091, 978	94. 57	1, 015, 065	97. 24	906, 117	96. 89	800. 381	94. 20
Read only.....	17, 301	1. 5	8, 757	. 84	6, 382	. 68	10, 661	1. 25
Neither read nor write.....	22, 940	1. 99	12, 907	1. 24	21, 856	2. 34	34, 889	4. 11
Unspecified.....	22, 418	1. 94	7, 135	. 68	885	. 09	3, 740	. 44

Literacy of total white population, all ages

Particulars	1918		1911		1904	
	Number	Per cent	Number	Per cent	Number	Per cent
Read and write.....	1, 091, 978	76. 80	969, 089	75. 93	855, 612	76. 61
Read only.....	17, 301	1. 22	17, 489	1. 37	19, 670	1. 76
Neither read nor write and infants..	22, 940	1. 61	287, 783	22. 55	233, 248	20. 89
Unspecified.....	22, 418	1. 58	1, 872	. 15	8, 276	. 74
Children under 7.....	267, 144	18. 79	-----	-----	-----	-----
Total.....	1, 418, 060	-----	1, 276, 242	-----	1, 116, 806	-----

United States.—The population schedule for the census of 1920 contained two items regarding illiteracy; one as to whether the person enumerated was able to read; the other as to whether he was able to write. Illiteracy is defined as inability to write in any language, not necessarily English, regardless of ability to read. The statistics relate to the population 10 years of age and over. The abstract of the illiteracy data ¹⁷ contains detailed figures both quantitative and percentages, for the Nation as a whole, the divisions, and the States. They are arranged by population classes—native white, foreign-born white, negro, and other racial groups—sex, various age groups, and urban and rural. They afford bases for a wide range of comparisons.

¹⁷ Fourteenth census of the United States. Population: 1920. Illiteracy. (Reprint of chap. 12, vol. 2, Fourteenth census reports.) Bureau of the Census, Washington, D. C.

CHAPTER III

Political Divisions with Illiteracy Rates Between 10 and 50 Per Cent

The political divisions having illiteracy rates between 10 and 50 per cent are listed in Table 3, page 22, in groups of 10 per cent range each. These 23 divisions are predominantly small in population. Eight have fewer than 1,000,000 inhabitants each; 10 others have fewer than 10,000,000. Four are outlying parts of the United States; 4, of the British Empire.

Finland, Estonia, Latvia, Lithuania, Poland, and Yugoslavia, of the European countries, are nations newly created or recreated since the World War. The illiteracy rates of the first four named are to a considerable extent the result of the policies of the former Russian Empire. That of Poland is inherited from Russia, Austria, and Germany. The central counties of Poland, formerly the Congress Kingdom, and the eastern counties, all of which were under Russian rule, reported in the census of 1921 illiteracy rates among those 10 years of age and over ranging from 30 to 71 per cent. The city of Warsaw is excepted. The 4 meridional counties which belonged to Austria report rates from 19.4 to 46 per cent. The 3 western counties, formerly under German rule, were, respectively, Poznan, 3.7 per cent; Pomorze, 5.2; and Slask Cieszynski, 2.5.

Rumania, at the close of the war, received considerable accessions of territory: Bucovine from Austria, Transylvania from Hungary, and Bessarabia from Russia. The illiteracy rate in Rumania, already probably high, seems to have been raised by the inclusion of the peoples living in these cessions.

The illiteracy rate on the European Continent increases in general as one goes toward the south and the east. Spain, Italy, and Bulgaria show comparatively high rates. The first two are long-established nations and fully responsible for the state of education within their borders. The rate for Greece is not given, and while it is estimated at considerably in excess of 50 per cent, no one knows with any certainty what it is.

Greek Macedonia and Thrace, otherwise called New or Northern Greece, became a part of Greece in 1912 after having belonged to Turkey for several centuries. Education was not common under the Turkish régime, a very large percentage of the population being illiterate.

Since 1912 so much history has been enacted here that little opportunity has been given for the study of it. Macedonia was a battleground during the World War as well as for Balkan wars, and after the defeat of the Greeks by the Turks in 1922, the exchange of great masses of population took place between the two countries and to a much lesser extent between Greece and Bulgaria. Of the million and a half refugees who fled or were transferred from Asia Minor to Greece, about a million came to New Greece during the period from 1922 to 1924 and replaced 350,000 Turks transferred to Turkey. * * *

Saloniki is the metropolis of New Greece, and it has grown from 175,000 in 1922 to about 500,000.¹

With such a shifting of populations, the Government of Greece can not be held responsible for the present status of illiteracy.

The rates for the three South American countries, Argentina, Uruguay, and Chile, correspond fairly closely to those of the southern European section.

Uruguay is listed in Table 3 as having between 30 and 39.9 per cent of illiteracy (inability to write in any language among persons 10 years of age and over). This is an estimate made from different sources of information. (See page 30.)

The population of these 23 political divisions, as shown in column 6, is 155,828,993. To this must be added the figures for Memel, 140,000, and the native population of New Guinea, estimated at 200,000, making a total of 156,168,993, or about 8.6 per cent of that of the world. Their land area is 3,410,617 square miles, about 6.6 per cent of that of the earth, excluding uninhabited polar regions.

The absolute number of illiterates for the political divisions reporting are: Estonia, 101,672; Hawaii, 35,336; Hungary, 1,090,715; New Guinea (Europeans), 304; Alaska, 10,874; Guam, 2,011; Latvia, 282,043; Newfoundland and Labrador, 43,392; Virgin Islands, 5,281; Cuba, 796,806; Finland, 619,367; Lithuania, 680,047; Poland, 6,581,307; Bulgaria, 1,744,704; Jamaica, 468,742; Colony of the Leeward Islands, 44,800; and Spain, 7,446,698; making a total of 19,954,099. Argentina, Italy, Yugoslavia, Uruguay, Chile, and Rumania, for which the data are based on unreliable indices, must have almost 19,000,000 and Memel and the native peoples of New Guinea about 140,000, making approximately 39,000,000 of persons 10 years of age and over that can not read and write.

¹ Educational facilities in Saloniki and Greek Macedonia. Rept. from Robert F. Fernald, American Consul at Saloniki, Dec. 10, 1927.

TABLE 3.—Political divisions having an illiteracy rate between 10 and 49.9 per cent listed in groups of 10 per cent range

Political division	Per cent of illiteracy	Definition on which the per cent is based	Number of persons in the class to which that per cent applies	Per cent which that class is of total population	Total population	Source of total population data ¹
1	2	3	4	5	6	7
<i>Group with 10 to 19.9 per cent illiterate</i>						
Estonia.....	10.8	10 years of age and over, unable to read and write.....	935, 131	84.4	1, 107, 393	Census of Dec. 28, 1922.
Hawaii.....	18.9	10 years of age and over, unable to write in any language.....	187, 167	73.1	255, 912	Census of 1920.
Hungary.....	15.17	6 years of age and over, unable to read and write.....	7, 189, 272	90.0	7, 980, 143	Census of Dec. 31, 1920.
Territory of New Guinea.....	² 10.7	5 years of age and over and unable to read.....	2, 839	89.4	3, 173	Census of Apr. 4, 1921.
<i>Group with 20 to 29.9 per cent illiterate</i>						
Alaska.....	24.8	10 years of age and over, unable to write.....	43, 768	79.5	55, 036	Census of 1920.
Argentina.....	24.0	Average of conscripts and enlisted men, 1913 to 1924.....	Not given.	-----	9, 548, 092	Official estimate, Jan. 1, 1924.
Guam.....	21.8	10 years of age and over, unable to write.....	9, 211	69.3	13, 275	Census of 1920.
Italy.....	³ 28.0	Over 6 years of age, unable to read.....	⁶ 2, 304, 784	5.9	38, 755, 576	Census of Dec. 1, 1921.
Latvia.....	21.17	Over 10 years of age, unable to read.....	1, 331, 939	83.5	1, 596, 131	Census of June 14, 1920.
Newfoundland and Labrador.....	23.0	Over 10 years of age, unable to read and write.....	188, 184	70.4	267, 330	Census of Apr. 24, 1921.
Virgin Islands (U. S.).....	24.9	10 years of age and over, can not write.....	21, 191	81.4	26, 051	Census of Nov. 1, 1917.
<i>Group with 30 to 39.9 per cent illiterate</i>						
Cuba.....	39.0	10 years of age and over, unable to read.....	2, 041, 971	70.6	2, 889, 004	Census of November, 1919.
Finland.....	30.1	15 years of age and over, can not read or write.....	2, 057, 227	61.1	3, 364, 807	Church registry, Dec. 31, 1921.
Lithuania.....	37.5	5 years of age and over, can not read.....	1, 813, 460	89.3	⁴ 2, 028, 971	Census of Sept. 17, 1923.
Poland.....	32.8	10 years of age and over, unable to read.....	20, 099, 584	73.9	27, 192, 674	Census of Sept. 30, 1921.
Uruguay.....	⁵ 11.8	18 years of age and over, contracting marriage.....	32, 332	.2	1, 494, 953	Estimate, Dec. 31, 1920.
Yugoslavia.....	35-38	-----	-----	-----	12, 017, 323	Census of Jan. 31, 1921.

Group with 40 to 49.9 per cent illiterate						
Bulgaria	46.75	10 years of age and over, unable to read or write	3,732,483	76.2	4,846,971	Census of Dec. 31, 1920.
Chile	40.8	5 years of age and over, unable to read	2,819,104	75.1	3,753,799	Census of Dec. 15, 1920.
Jamaica	47.8	5 years of age and over, can not read and write	746,465	86.99	858,118	Census of Apr. 24, 1921.
Colony of Leeward Islands	50.94	Any age, can not read and write	122,242	100	122,242	Do.
Rumania	40-50	10 years of age and over, not knowing how to write			16,262,177	Estimate, Dec. 31, 1920.
Spain	42.88	10 years of age and over, not knowing how to read and write	16,805,848	78.5	7 21,389,842	Census of Dec. 31, 1920.

¹ Unless otherwise stated, the date is that of the latest organized census.
² Applies to the European population only. About 200,000 natives not included.
³ Data for Tuscany only.
⁴ Not including Memel (140,000).
⁵ See p. 30 for reasons for including Uruguay in 30 to 39.9 per cent group.
⁶ Reduced to persons 5 years of age and over and included in the 40 to 49.9 per cent group. See p. 32.
⁷ Including the Balearic and Canary Islands.

Estonia.—In Estonia, among persons over 15 years of age, the census of 1922 showed 5.9 per cent unable to read or write; an additional 5.8 per cent knew only how to read, making a total of 11.7 per cent wholly or partly illiterate.² For those 10 years of age and over, the figure is 10.8 per cent; for 7 years of age and over, 12.66 per cent.³

Hawaii.—The population of the Territory of Hawaii is so heterogeneous that data for illiteracy are given by divisions for the sexes under 12 racial classifications. The rates are: Hawaiian, 3 per cent; Caucasian Hawaiian, 0.6 per cent; Asiatic Hawaiian, 1.1 per cent; Portuguese, 18.9 per cent; Porto Rican, 46.7 per cent; Spanish, 31.5 per cent; other Caucasian, 0.8 per cent; Chinese, 21 per cent; Japanese, 20.8 per cent; Korean, 17.3 per cent; Filipino, 46.7 per cent; Negro and all other, 14.7 per cent.⁴ The definition of illiteracy is that commonly used in the United States.

Hungary.—The population of Hungary 15 years of age and over numbers 5,536,588, or 69.4 per cent of the total of all ages. In this age group, 744,903 (13.4 per cent) could neither read nor write.⁵ Persons 6 years of age and over number 7,189,272; and 1,090,715, or 15.17 per cent, could neither read nor write. Those 10 years of age and over are 6,450,683, or 80.8 per cent of the population.

Territory of New Guinea.—The term "New Guinea" is here applied to the area of about 92,000 square miles over which the League of Nations gave Australia a mandate. It consists of that part of the island of New Guinea formerly known as Kaiser Wilhelm's Land, Bismarck Archipelago, and the two most northern of the Solomon Islands—Bougainville and Buka. The indigenous population of Papuans and Melanesians is estimated at from 200,000 to 300,000. The total nonindigenous population of 3,173 was 1,288 European, 1,424 Chinese, and the remainder of other Asiatic races.⁶

² Annusson, Jüri. *Instruction publique en Estonie*. Tallinn, 1925.

³ *Aperçu de la démographie des divers pays du monde*, 1925.

⁴ Fourteenth Census of the United States, 1920, bulletin. Population: Hawaii, Bureau of the Census Washington, D. C.

⁵ *Aperçu de la démographie des divers pays du monde*, publié par l'Office Permanent de l'Institut International de Statistique, 1925.

⁶ Census of the Commonwealth of Australia, Apr. 4, 1921. Census Bul. No. 8. Territory of New Guinea (mandated area). Prepared by the Commonwealth statistician, Melbourne.

Illiteracy in the mandated area of New Guinea

Can not read:	
Under 5 years of age.....	167
5 years and over.....	7 304
English language:	
Read only.....	10
Read and write.....	1 247
Foreign language only:	
Read only.....	12
Read and write.....	1, 160
Not stated.....	273
Total.....	3, 173

Alaska.—Of the 55,036 persons in Alaska, one-half are white, 48 per cent are Indian, and the other 2 per cent are Chinese, Japanese, Negro, and mixed blood. Illiteracy data are available for all classes, 10 years of age and over, by race, sex, and age groups.⁸ The rates for the different racial groups are: Native white, 0.5 per cent; foreign-born white, 3.4 per cent; and Indian, 56.4 per cent.

Argentina.—The Argentine Republic consists of one Federal district, 14 Provinces, and 10 Territories. Approximately 4.5 per cent of the population is in the Territories, and data on illiteracy for this small part of the people were gathered at a census in 1920.⁹ The number of illiterates (unable to read or write) among persons 6 years of age and over was 131,961, or 42.9 per cent. This index can not be considered as representative of the entire population, but it seems to be accurate for the group for which the data were collected.

In the absence of data gathered for the entire country at a national census, probably the best index for Argentina is in a table giving the percentage of illiterates among the conscripts (men 20 years of age and over required to do military duty) taken into the army in the years 1913 to 1924.¹⁰ The average per cent of illiteracy for the years cited was 24.77. That figure is used in Table 3, page 22.

Guam.—The population (13,275) of Guam is 92 per cent Chamorro, 3 per cent Filipino, and 2.1 per cent white. The remainder are Chinese, Japanese, and mixed. Of the persons 10 years of age and over, 21.8 per cent were reported as unable to write, and 16.5 per cent could neither read nor write.¹¹ The percentage of illiterate females (29.6) was more than double that of males (13.3), due mainly to the indifference of the natives to the education of girls. The percentages

⁷ 10.7 per cent.

⁸ Fourteenth Census of the United States, 1920, bulletin. Population: Alaska. Bureau of the Census, Washington, D. C.

⁹ Ministerio del Interior Asesoría letrada de Territorios Nacionales. Censo general de los Territorios Nacionales Republica Argentina, 1920, Tomo I y Tomo II. Buenos Aires, 1923.

¹⁰ In *La Vanguardia*, Buenos Aires, Aug. 1, 1924.

¹¹ Fourteenth census of the United States, 1920, bulletin, census of Guam, Bureau of the Census, Washington, D. C.

were very much higher for the age groups over 24 years than they were for persons under that age, owing to the fact that the older people of Guam had never received the benefits of a system of public schools.

Italy.—Statistics of illiteracy for the entire Kingdom taken at a recent regular census are not available. Data from the census of December 1, 1921, have been published for Tuscany.¹² This Province had a population of 2,765,740, or 7 per cent of that of the Kingdom. Out of every 100 persons over 6 years of age, 72 were able to read. The per cent of men was 76; of women, 68. The per cent of illiteracy, then—inability to read among persons over 6 years of age—is 28 for this one Province. In 1911 the illiteracy rate for Tuscany was 37.4 per cent, while that for the Kingdom was 37.6 per cent;¹³ so Tuscany may be considered as fairly representative of all Italy.

Estimates taken from another source are:¹⁴

In 1872 the percentage of illiterates was 68.7 per cent; in 1901 it was reduced to 48.5 per cent, in 1911 to 37.6 per cent; and although no official figures are yet available, it is estimated at 23 per cent in 1922.

Doctor Stella uses illiteracy here to mean inability to read among persons 6 years of age and over.

Latvia.—The census of June 14, 1920, showed that 25.7 per cent of all persons 6 years of age and over could neither read nor write.¹⁵ For persons over 10 years of age the same report indicates that 21.17 per cent were unable to read or write.

The counselor of the Legation of Latvia writes:

As to the illiteracy in Latvia, we have at our disposal no more recent data than those procured by the first census of the Latvian Government in 1920. From that year we possess the data stating that the number of our nationals, older than 10 years, who *could read* was in the four Provinces of Latvia as follows: Vidzeme, 93.71 per cent; Kurzeme, 89.69 per cent; Zemgale, 84.66 per cent; Latgale, 50.13 per cent; total, 78.83 per cent.¹⁶

Newfoundland and Labrador.—By the census of April 24, 1921, these divisions of the British Empire have a population of 267,330. Data on education are given as follows:¹⁷

¹² La Scuola in Toscana. Bollettino del R. Provveditorato agli Studi, Firenze. Anno II, N. 10, Ottobre, 1925.

¹³ Ufficio Centrale de Statistica. Annuario statistico Italiano, Seconda serie, Vol. VII, Anni 1917 e 1918.

¹⁴ Stella, Antonio, M. D. Some aspects of Italian immigration to the United States. New York, G. P. Putnam's Sons, 1924.

¹⁵ Aperçu de la démographie des divers pays du monde, publié par l'Office Permanent de l'Institut International de Statistique, 1925.

¹⁶ References: M. Skujenieks, Latvija, Zeme un iedzivotaji. — — —

¹⁷ Census of Newfoundland and Labrador, 1921. St. Johns, Newfoundland, 1923.

Education of population in Newfoundland and Labrador

Education	Newfoundland		Labrador		Total	
	1911	1921	1911	1921	1911	1921
Number between 5 and 15 years of age at school...	40,424	48,993	293	296	40,717	49,289
Number between 5 and 15 not at school.....	19,609	11,703	214	404	19,823	12,107
Number over 15 at school.....	0	2,116	0	0	0	2,116
Number over 10 years who can read and write ¹ ...	132,663	142,955	2,009	1,837	134,672	144,792
Number over 10 years who can not read and write ¹	72,808	42,148	1,340	1,244	74,148	43,392

¹ The 1911 data are from 5 years of age and upward.

Of the 188,184 persons over 10 years of age, 43,392, or 23 per cent, could not read or write. The percentage is 40 in Labrador; 22.7 per cent in Newfoundland.

Virgin islands (U. S.).—The three principal islands—St. Thomas, St. Croix, and St. John—have an area of about 142 square miles; and by the census of November 1, 1917, they had a population of 26,051, of which 7.4 per cent were white, 74.9 per cent negro, 17.5 per cent mixed, and 0.2 per cent of other races.¹⁸ The persons under 10 years of age were 4,860, or 18.6 per cent of the total population. Statistics of illiteracy were gathered for those 10 years of age and over under the definition commonly used in the United States and are reported for each island separately, the islands as a group, by sexes, by urban and rural populations, by races, and for certain age groups. Of the population 10 years of age and over, numbering 21,191, 24.9 per cent, or 5,281, were illiterate. The rate for males was 23.9 per cent; for females, 25.8 per cent. Among the races they were: White, 11.3 per cent; negro, 29.7 per cent; and mixed, 9.6 per cent. The percentage increased with each succeeding age group. Except for the age groups 10 to 14 and 15 to 19 it was very high among the negroes.

Cuba.—The report¹⁹ of the latest census, 1919, gives literacy data under the headings "Can read" and "Can not read" for the population 10 years of age and over. The data are arranged by provinces, certain age groups, and color, and nativity. Of the 2,041,971 inhabitants 10 years of age and over, 1,245,165, or 61 per cent, were able to read. Of the total population, 47.6 per cent could read.

Per cent of literacy in Cuba by age groups and sex

Age	Both sexes	Men	Women
10-14.....	53.4	50.2	56.8
15-19.....	71.2	68.0	74.5
20-24.....	73.7	72.9	74.7
25-29.....	73.2	74.2	72.0
30-34.....	67.0	69.8	63.4
35-44.....	59.5	62.9	54.9
45-54.....	52.8	56.6	47.8
55-64.....	46.5	49.1	43.2
65 and over.....	37.2	38.0	36.4

¹⁸ Department of Commerce, Bureau of the Census. Census of the Virgin Islands of the United States, Nov. 1, 1917. Washington, Government Printing Office, 1918.

¹⁹ Census of the Republic of Cuba, 1919. Dirección general del censo. Havana.

By color and nativity the percentages for both sexes are: Native white, 62.7 per cent illiterate; foreign white, 75.3; and colored, including black, mixed, and yellow, 53.1.

Finland.—The population is 88.7 per cent Finnish-speaking, 11 per cent Swedish-speaking, and 0.3 per cent use other languages. The report of the census taken on December 31, 1921, gives the extent of education under four categories:²⁰ (1) Persons who have received instruction higher than primary; (2) other persons knowing how to read and write; (3) those knowing only how to read; and (4) those not knowing how to read and write.

The data under these four classifications for all persons 15 years of age and over are as follows:

Absolute figures and number per thousand for education in Finland

Class	With education above primary		Others that can read and write		Can read only		Can not read or write		Total
	Number	Number per 1,000	Number	Number per 1,000	Number	Number per 1,000	Number	Number per 1,000	
Total.....	109,163	53	1,328,697	646	598,821	291	20,546	10	2,057,227
Men.....	53,220	55	642,226	656	272,174	278	11,024	11	978,644
Women.....	55,943	52	686,471	636	326,647	303	9,522	9	1,078,583
Finnish.....	73,810	40	1,158,092	640	558,736	309	19,286	11	1,809,924
Swedish.....	32,675	136	166,854	696	39,545	165	738	3	239,812
Russian.....	748	207	2,293	634	147	40	431	119	3,619
German.....	1,787	971	148	76	5	3	-----	-----	1,940
Others.....	143	74	1,310	678	388	201	91	47	1,932

By the definition of illiteracy as "inability to write in any language, regardless of ability to read," illiteracy in Finland among persons 15 years of age and over is 30.1 per cent. Including the 370,495 children from 10 to 14 years of age, inclusive, would probably make the rate slightly higher.

Lithuania.—Statistics of illiteracy for Lithuania as reported ²¹ by the Central Bureau of Statistics of the Ministry of Finance are unusual in that they show a very high percentage of persons knowing only how to read. Data for the entire population are divided into city (places with more than 2,000 inhabitants) and country, and are given (1) for those knowing how to read and write, and (2) for those knowing only how to read. A summary is as follows:

Urban and rural illiteracy in Lithuania

	Urban		Rural		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
Population of all ages.....	302,934	-----	1,726,037	-----	2,028,971	-----
Knowing how to read and write.....	193,415	63.84	940,406	54.48	1,133,821	55.88
Knowing how to read only.....	20,944	6.91	400,499	23.20	421,392	20.76

²⁰ Suomen Tilastollinen Vuosikirja uusi sarja Kahdeskymmenesneljas Vuosikerta, 1926. Helsinki, 1926.

²¹ Statistikos Biuletinis, 1924 metai., Rugsejis m., 9 Nr. Centr. Statistikos Biuras, Finansu Ministerija, Kaunas.

If the definition of illiteracy is assumed to be "having no knowledge of either reading or writing," the per cent of illiteracy for the total population of Lithuania becomes in the light of these figures, 23.36 per cent. If the more exacting definition of "inability to write in any language, regardless of ability to read" is the criterion, the rate of illiteracy must be considered as 44.12 per cent. In both cases the rate is comparatively high since children under 10 years of age are included. (See pp. 4 and 5.)

The same kinds of data are given for children 7 to 13 years, inclusive of both ages. They summarize as follows:

Urban and rural illiteracy among children in Lithuania

	Urban		Rural		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
Children 7 to 13 years of age, inclusive.....	38, 430	-----	260, 502	-----	298, 932	-----
Knowing how to read and write.....	26, 201	68. 17	113, 893	43. 72	140, 094	46. 89
Knowing how to read only.....	1, 091	2. 8	33, 439	12. 83	34, 530	11. 55

By the two definitions just cited illiteracy in this group of children, of what is ordinarily the compulsory school ages, is either 41.56 per cent or 53.11 per cent.

Disregarding the 215,511 children under 5 years of age as being all illiterate, the per cent of illiteracy for the population 5 years of age and over—by the standard "having no knowledge of either reading or writing"—is 14.3; and by the standard of "inability to write in any language" it is 37.5 per cent. The latter figure is used in the table.

Disregarding the 275,742 children under 7 years of age as being all illiterate, the rates are, respectively, 11.3 per cent and 35.4 per cent for the population 7 years of age and over.

Poland.—The returns for illiteracy in all of Poland from the census of September 30, 1921, have recently been made public.²² In a population of 20,099,584 ten years of age and over, 6,581,307, or 32.8 per cent, were unable to read, and for an additional 887,055, or 4.4 per cent, the status as to literacy was unknown.

The data for the entire country are given by absolute figures and percentages for the sexes, the different Provinces, and urban and rural communities under the classifications: Knowing how to read; the degree of instruction, including private, elementary, middle school, professional, higher, and unknown; illiterates (unable to read); and knowledge of reading unknown. Data are presented also for illiteracy by five different age groups.

²² *Annuaire statistique de la République Polonaise.* IV année, 1925-26. Varsovie, 1927.

Uruguay.—No census of the country has been taken since 1908. Data are available for the literacy—the term is not defined—among persons contracting marriage. The ages are 18 and over. Of 16,714 persons in 1920 entering the marriage contract, 7,374 men (88.2 per cent) and 7,301 women (87.3 per cent) were literate.²³ Of 15,618 such persons in 1921, 6,971 men (89 per cent) and 6,890 women (88.2 per cent) were literate.²⁴ Combining the data for the 2 years among the 32,332 persons, 88.7 per cent of the men and 87.7 per cent of the women, with 88.2 per cent for both sexes, were literate. In this group, representing only 0.2 per cent of the entire population, illiteracy is, therefore, 11.8 per cent.

In 1921 there were 130,600 children in public and private elementary schools and about 5,500 adults were taking night courses. In the population of 1,494,953, about 1 in 11 was attending school.

In 1911, illiteracy (not defined) was 49.4 per cent in a total population of 1,042,686. It was 36.2 per cent in those over 14 years of age.

Yugoslavia.—The Legation of the Kingdom of the Serbs, Croats, and Slovenes reports the percentage of illiteracy to be between 35 and 38, but does not define the term illiteracy as used in Yugoslavia, nor the ages to which it applies.

The American consul at Belgrade reported in 1926:

School systems in Yugoslavia

(Prepared March 29, 1926)

Literacy.—According to the census of 1921, 48.5 per cent of the population of the Kingdom of school age or over can read or write. The percentage of literacy varies greatly in the several Provinces, as may be seen from the following table:

Percentage of literacy in 1921

	Per cent
North Serbia.....	34
South Serbia.....	16
Montenegro.....	33
Dalmatia.....	50. 5
Veivodina.....	77. 8
Bosnia and Herzegovina.....	20. 6
Croatia and Slavonia.....	67
Slovenia.....	86
Average for the Kingdom.....	48. 5

The number of illiterates is steadily decreasing with the extension of educational advantages.

Bulgaria.—By the census of December 31, 1920, the total population was 4,846,971, and of these 2,154,945, or 44.46 per cent, were literate (able to read and write). This includes 495,913 children under 5 years of age, all considered illiterate. The population 10

²³ Anuario Estadístico de la República Oriental del Uruguay. Libro XXX., Anno, 1920. Montevideo.
²⁴ *Ibid*, Libro XXXI., Anno, 1921.

years of age and over numbered 3,732,483, and of these 1,987,779, or 53.25 per cent, were literate.

Of the 618,575 children between 5 and 9 years of age, inclusive, 167,166, or 27.02 per cent, were literate.

Data are available ²⁵ for literacy in the total population and by sexes for each age year to 30 and by 5-year age periods from 30 to 100. (See p. 65 et seq.)

Literacy in Bulgaria by ethnological groups

Group	Total number	Number of literates	Per cent of literacy	
			1920	1905
Bulgarians.....	3, 947, 657	2, 009, 374	50. 90	32. 27
Bulgarian-Mohammedans.....	88, 399	3, 369	3. 81	2. 20
Turks.....	520, 339	45, 225	8. 69	3. 96
Tartars.....	4, 905	898	18. 31	7. 75
Gagaouzes.....	3, 669	1, 445	39. 38	23. 60
Tziganes.....	98, 451	5, 917	6. 01	2. 26
Greeks.....	42, 074	17, 225	40. 94	35. 20
Rumanians.....	57, 312	16, 263	28. 38	15. 34
Jews.....	43, 209	29, 805	68. 98	53. 67
Armenians.....	11, 509	7, 365	63. 99	54. 28
Others and not known.....	29, 447	18, 059	61. 33	44. 33
Total.....	4, 846, 971	2, 154, 945	44. 46	27. 91

Chile.—The population of Chile, given by Provinces, and classified by literacy and sex, is given for the census of December 15, 1920.²⁶ The literacy data are divided into the classifications "Can read" and "Can not read." They apply to all ages. Out of a population of 3,753,799, those that could not read numbered 1,862,019, or 49.7 per cent.

In the Latin-American countries approximately 14.4 per cent of the population is under 5 years of age. Disregarding that percentage of persons in Chile, the illiteracy rate for those 5 years of age and over is 40.8 per cent.

The census report ²⁷ gives the following table of the percentage of literates with relation to age:

Per cent of literates in Chile by age groups

Years of age	Men	Women	Total	Years of age	Men	Women	Total
4.....	0. 3	0. 4	0. 3	25-29.....	70. 5	66. 1	68. 3
5.....	3. 9	4. 1	4. 0	30-34.....	69. 2	61. 8	65. 4
6-7.....	24. 1	25. 4	24. 7	35-39.....	67. 9	61. 8	64. 8
8-9.....	44. 5	45. 3	44. 9	40-44.....	63. 9	56. 8	60. 4
10-11.....	57. 4	58. 2	57. 9	45-49.....	52. 9	47. 1	50. 0
12-14.....	62. 7	64. 9	63. 8	50-54.....	37. 2	33. 8	35. 4
15-19.....	66. 7	69. 4	68. 1	55-59.....	17. 9	16. 0	16. 7
20-24.....	71. 2	69. 3	70. 2				

²⁵ Annuaire statistique du Royaume de Bulgarie, XVII année, 1925. Sofia, Imprimerie de l'État, 1926.

²⁶ Sinopsis estadística de la República de Chile. Oficina Central de Estadística. Santiago de Chile, Agustinas, 1250. 1925.

²⁷ Censo de Población de la Republica de Chile, Dec. 15, 1920.

Jamaica.—The population as found by the census of April 24, 1921, was 858,118, or 193 to the square mile. The lower age groups were: Under 5 years, 111,653, or 13.01 per cent; 5 to 9, inclusive, 120,923, or 14.09 per cent; and 10 to 15, inclusive, 105,087, or 12.25 per cent.

Racially they were: White, 14,476, or 1.7 per cent; colored, 157,223, or 18.3 per cent; black, 660,420, or 76.9 per cent; East Indian, 18,610, or 2.1 per cent; Chinese, 3,696, or 0.5 per cent; not stated, 3,693, or 0.5 per cent.

For 1921, the percentage of literacy is 60.9 if the criterion is “ability to read or write”; it is 52.16 if “ability to read and write” is the standard. The illiteracy rate 47.84 per cent, based on the latter standard, is used in the table.²⁸

Colony of the Leeward Islands.—By the census of April 24, 1921, the colony has a total population of 122,242. Statistics of literacy (can read and write) are based on the total, the age element being disregarded.²⁹ Population and literacy data for the different parts of the colony are:

Per cent of literacy in the Leeward Islands

	Total population	Literates	Per cent of literacy
Antigua.....	28,864	18,871	65.4
St. Christopher-Nevis.....	38,214	23,157	60.7
Dominica.....	37,059	11,737	31.6
Montserrat.....	12,120	3,907	32.2
Virgin Islands.....	5,028	2,307	45.8
Total.....	122,242	59,979	49.06

This brings the per cent of illiteracy to 50.94. Assuming that one-seventh of the population is 5 years of age or less and that all of these are illiterate, the rate is 42.7 per cent. (See pp. 4 and 5.)

Rumania.—Statistics for the present Kingdom of Rumania, with its population estimated in 1920 at 16,262,177, are lacking. The following tables taken from a recent statistical annual ³⁰ offer the only indices at present available.

Prisoners who entered prison in 1924 in Rumania, according to amount of education had on entrance

Amount of education	Men	Women	Total
Having higher education.....	5,941	26	5,967
Knowing how to read and write.....	26,023	571	26,594
Knowing how to read.....	4,696	599	5,295
Without education.....	32,427	3,558	35,985
Total.....	69,087	4,754	73,841

²⁸ The annual general report of Jamaica, together with the departmental reports for 1921. Kingston, Government Printing Office, 1922.

²⁹ Watkins, Frederick Henry. Handbook of the Leeward Islands. London, West India Committee, 1924.

³⁰ Annuaire statistique de la Roumanie, 1924. Publié par le Ministère de l'Industrie et du Commerce. Bucuresti, Tipografia Curtii Regale, F. Gobl Fii, 1925.

Other estimates indicate that the percentage of those over 10 years of age who can neither read nor write may be more than 50. None indicates less than 40.

Spain.—Careful statistics on illiteracy in Spain were gathered at the census of December, 1920, and are summarized in the report.³¹ As given there, the data are not fairly comparable to those of other countries. The per cent of illiteracy, those who could neither read nor write, is given as 52.23, but it includes the population of all ages. Another authority ³² gives the per cent for those 5 years of age and over as 46.68.

Absolute figures have recently been published ³³ for the total population, persons knowing how to read, those knowing how to write, those not knowing how to read, and undetermined, for both sexes and for different age groups. The per cent of illiteracy computed from this for those 10 years of age and over is 42.88. (See pp. 64 and 67, et seq.)

³¹ Censo de la población de España segun el empadronamiento hecho en la Peninsula e Islas Adyacentes, Dec. 31, 1920. Tomo II. Ministerio de Trabajo, Comercio e Industria. Madrid, 1924.

³² Aperçu de la Démographie des Divers Pays du Monde, 1925.

³³ Anuario Estadístico de España, Año XI, 1924-25. Ministerio de Trabajo, Comercio e Industria. Madrid, 1926.

CHAPTER IV

Political Divisions with Population over Half Illiterate

The political divisions that report an illiteracy rate of more than 50 per cent are named in Table 4, page 36. The immediately striking feature of this group of 18 countries is the immense population under consideration, approximately 618,000,000, as compared with the 45 countries having rates under 50 per cent and their population of some 468,000,000. With the exception of the Union of Soviet Republics, they are in or near the Torrid Zone. Their peoples are largely indigenous, or in the American divisions, mixed southern European and indigenous. The northern and western European population makes up only a small per cent of the total.

The population of these political divisions as shown in column 6 of Table 4 is 611,495,465. To this must be added the aboriginal and other groups not included in the reports on illiteracy as follows: Aborigines in Colombia (154,428) and British Guiana (9,700); certain sections and elements of Mexico (1,157,412); "non-Christian" peoples and those of foreign birth in the Philippines (995,289); aborigines in Venezuela (estimated at 350,000); peoples in India for which the data were not gathered (2,887,249); and Asiatics and persons of mixed blood in the Union of South Africa (812,706); total, 6,341,784. This added to the total of column 6 gives a population of 617,837,249, or 33.9 per cent of the population of the world. Their area, without the Union of South Africa (472,347 square miles) which was included in Table 2, page 10, is 16,433,446 square miles, or 31.6 per cent of the area of the earth, excluding uninhabited polar regions.

If the actual number of illiterates is computed, the figures run into a startling number of millions. They are: Ceylon, 2,317,530; Colombia, 3,637,552; British Guiana, 169,811; British Malaya (urban areas only), 451,759; Mexico, (the Federal District and the territories not included), 8,208,454; Philippine Islands ("non-Christians" and foreigners not included), 3,242,627; Porto Rico, 497,089; the Soviet Union (in Europe), 45,534,011; Nicaragua, 370,038; Portugal, 3,673,209; Venezuela (6 States only), 369,171; Brazil, 18,549,085; Dominican Republic, 363,265; Guatemala, 1,375,818; Dutch East Indies, 27,924,805; Egypt, 9,950,755; India, 207,966,631; and the Union of South Africa (Bantu), 4,173,485; making a total of 338,775,095.

To this should be added about 31,225,000 illiterates estimated to be in the rural and urban sections of British Malaya; in the Soviet Union outside of Europe; in the States of Venezuela not yet reported on; the aborigines in Colombia, British Guiana, and Venezuela; the "non-Christian" peoples and those of foreign birth in the Philippines; Asiatics and persons of mixed blood in the Union of South Africa; and the peoples in India and Mexico for which data were not given. This makes a total of approximately 370,000,000 of persons 10 years of age and over that can not read and write.

The indices given in column 2 of Table 4, page 36, do not in several cases correspond to the grouping. For example, Ceylon, with an index of 60.1 per cent, is placed in the list of political divisions with percentages of illiteracy ranging from 50 to 59.9. In general the attempt is to arrange the groups according to the criteria of illiteracy, as "persons 10 years of age and over that can not write in any language." The index for Ceylon applies to persons 5 years of age and over that can not read and write a short letter. If those between 5 and 10 years of age are excluded, the rate for Ceylon will be lowered at least 2 or 3 per cent. The indices for Colombia, British Malay, and Mexico apply to all ages. Excluding those under 10 years will reduce the rates to something less than 60 per cent. For the same reasons Nicaragua, Venezuela, and Brazil are placed in the group below that which the given index would indicate. The figure given for Russia, 12.3 per cent, obtained from the army recruits, is undoubtedly far below the true one. Other data quoted in the sketch for that country indicate at least 50 per cent illiteracy among persons 10 years of age and over.

Those divisions reporting rates slightly above 90 per cent are placed in the 90 to 100 per cent group. The inclusion of the lower ages, as we have seen, makes little difference in the percentage if the rate is so high. (See pages 4 and 5.)

TABLE 4.—Political divisions having an illiteracy rate between 50 and 100 per cent, listed in groups of 10 per cent range

Political division	Per cent of illiteracy	Definition on which the per cent is based	Number of persons in the class to which that per cent applies	Per cent which that class is of total population	Total population	Source of total population data ¹
1	2	3	4	5	6	7
<i>Group with 50 to 59.9 per cent illiterate:</i>						
Ceylon.....	60.1	5 years of age and over, can not read and write a short letter.....	3,855,524	85.7	4,504,549	Census of Mar. 18, 1921.
Colombia.....	63.8	All ages, can not read and write.....	² 5,696,649	100.0	³ 5,696,649	Census of Oct. 14, 1918.
British Guiana.....	52.1	5 years of age and over, unable to write.....	³ 266,960	89.6	³ 297,691	Census of Apr. 24, 1921.
British Malaya.....	61.9	All ages, can not read and write a short letter.....	729,713	22.1	3,358,054	Do.
Mexico.....	62.2	All ages, can not read and write.....	⁴ 13,177,368	100.0	⁴ 13,177,368	Census of Nov. 30, 1921.
Philippine Islands.....	50.8	Christian Filipino, 10 years of age and over, can not read any Filipino dialect.....	⁵ 6,381,261	68.47	⁵ 9,319,021	Census of Dec. 31, 1918.
Porto Rico.....	55.0	10 years of age and over, unable to write.....	904,423	69.5	1,299,809	Census of 1920.
Union of Soviet Republics.....	12.3	Army recruits, 1924 and 1925—21 years of age and over, can not read and write.....	Not given.	-----	145,906,624	Census of December, 1926.
<i>Group with 60 to 69.9 per cent illiterate:</i>						
Brazil.....	71.2	5 years of age and over, can not read and write.....	25,772,442	85.1	30,635,605	Census of Sept. 1, 1920.
Nicaragua.....	72.27	All ages, can not read and write.....	638,119	100.0	638,119	Census of Jan. 1, 1921.
Portugal.....	67.66	5 years of age and over, unable to read and write.....	5,428,859	89.9	6,032,911	Census of Dec. 1, 1920.
Venezuela.....	⁶ 72.1	All ages, can not read and write.....	⁶ 511,878	19.1	⁷ 2,672,600	Estimated from census of Jan. 31, 1926.
<i>Group with 70 to 79.9 per cent illiterate:</i>						
Dominican Republic.....	70.0	13 years of age and over, unable to read.....	518,497	57.9	894,665	Census of July 6, 1920.
<i>Group with 80 to 89.9 per cent illiterate:</i>						
Guatemala.....	86.82	7 years of age and over, can not read and write.....	1,584,227	79.0	2,004,900	Census of Aug. 28, 1921.
<i>Group with 90 to 100 per cent illiterate:</i>						
Dutch East Indies.....	94.8	15 years of age and over, can not read and write.....	28,144,923	57.3	49,350,834	Census of November, 1920.
Egypt.....	92.0	5 years of age and over, can not read and write.....	10,814,061	85.2	12,718,255	Census of Mar. 7, 1917.
India.....	90.5	10 years of age and over, can not read and write a short letter.....	⁸ 228,946,620	71.7	⁸ 316,055,231	Census of Mar. 18, 1921.
Union of South Africa.....	⁹ 90.3	Any age, can not read and write.....	⁹ 4,697,813	100.0	⁹ 4,697,813	Census of May 3, 1921.

¹ Unless otherwise stated, the date is that of the latest organized census.
² Not including 154,428 Indians whose intellectual development is not considered.
³ Not including about 9,700 aborigines.
⁴ Not including 979,860 persons in the Federal District, Baja California, and Quintana Roo, and probably the foreign element. Total not included, 1,157,412.
⁵ Not including 62,336 persons of foreign birth and 932,953 so-called "non-Christian" peoples.
⁶ Data for 6 States only, about one-fifth of the total population; about 55,000 Indians not included.
⁷ Exclusive of Indians, about 325,000.
⁸ Not including 2,887,249 for whom the data were not obtained.
⁹ Applies only to the native Bantu race; for Europeans, see Table 2, p. 10.

Ceylon.—The total population by the census of March 18, 1921, was 4,504,549 persons, of whom Low-country Sinhalese were 42.8 per cent; Kandyan Sinhalese, 24.2 per cent; Ceylon and Indian Tamils, 24.9 per cent; Ceylon and Indian Moors, 6.3 per cent; Europeans, 0.2 per cent; Burghers and Eurasians, 0.7 per cent; and other races, 0.9 per cent.

Careful statistics on literacy and English literacy were gathered for all persons 5 years of age and over and are reported ¹ in detail by races, religions, the sexes, and certain age groups. Considerable pertinent discussion accompanies the tables.

The test of literacy was fixed as the “ability to read and write a short letter,” and the enumerators were given an example of about the amount of ability required. They were not to consider as “literate,” persons who could only sign their names.

Literacy and English literacy in Ceylon

Ceylon	1911	1921	Per cent
Population:			
Men.....	2, 175, 030	2, 381, 812	-----
Women.....	1, 931, 320	2, 116, 793	-----
Total.....	4, 106, 350	¹ 4, 498, 605	-----
Literates:			
Men.....	878, 766	1, 156, 119	48. 6
Women.....	204, 062	381, 475	18. 0
Total.....	1, 082, 828	1, 537, 594	34. 2
English literates:			
Men.....	70, 862	107, 296	4. 5
Women.....	23, 781	37, 213	1. 8
Total.....	94, 643	144, 509	3. 2

¹ Europeans, 8,118.

When from the above data the children under 5 years of age are excluded (numbering 643,481), the percentages, including those for the two previous censuses, are as shown in the table here given.

Literacy and English literacy in Ceylon, excluding children under 5 years of age

	1901	1911	1921
Literates:			
Men.....	42. 0	47. 2	56. 3
Women.....	8. 5	12. 5	21. 2
Both sexes.....	26. 4	31. 0	39. 9
English literates:			
Men.....	3. 7	3. 8	5. 2
Women.....	1. 4	1. 5	2. 1
Both sexes.....	2. 6	2. 7	3. 7

¹ Census publications, Ceylon, 1921. Vol. I, Pts. I and II. Report on the Census of Ceylon, 1921. L. J. B. Turner. Colombo, Ceylon, 1923.

The report shows 1,218,325 children under 10 years of age.

Colombia.—The census of October 14, 1918, gives the population as 5,696,694, exclusive of 158,428 Indians. Of this population, excluding the Indians, 3,637,552, or 63.8 per cent,² could neither read nor write. The following table is taken from the latest census report.³

Literacy of population of Colombia, exclusive of Indians

	Men		Women		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
Can read and write.....	845,313	32.56	791,807	28.44	1,637,120	30.43
Can read but not write.....	44,648	1.73	64,150	2.32	108,798	2.04
Can neither read nor write.....	1,709,785	65.71	1,927,767	69.24	3,637,552	67.53
Unspecified.....	149,652	-----	163,527	-----	313,179	-----

The same report gives the number of children under 10 years of age as 1,614,248, or 28.33 per cent, and those under 5 as 830,082, or 14.5 per cent. Assuming all under 5 to be illiterate, the percentage of illiteracy among those 5 years of age and over is 57.6 per cent.

British Guiana.—The total population by the census of April 24, 1921, was 297,691, not counting about 9,700 aborigines. The population consists of Europeans, 1.11 per cent; Portuguese, 3.08 per cent; East Indians, 41.97 per cent; Chinese, 0.91 per cent; Blacks and Africans, 39.36 per cent; mixed, 10.28 per cent; aborigines, 3.07 per cent; not stated, 0.22 per cent. Of the persons 5 years of age and over, 132,240, or 49.5 per cent, were returned as able to read and 127,880, or 47.9 per cent, as able to write.⁴ The data arranged for each sex are: Can read: Men, 67,195, or 40.45 per cent; women, 65,045, or 49.63 per cent. Can write: Men, 65,355, or 48.09 per cent; women, 62,525, or 47.7 per cent.

British Malaya.—British Malaya includes the Colony of the Straits Settlements; the Federated Malay States of Perak, Selangor, Negri Sembilan, and Pahang; and the Unfederated States of Jahore, Kedah, Perlis, Kelantan, and Trengannu in the Malay Peninsula, and of Brunei in the Island of Borneo. The total population, by the census of April 24, 1921, was 3,358,054, or 59.32 per square mile, distributed as follows: Straits Settlements, 883,769; Federated Malay States, 1,324,890; Unfederated Malay States, 1,149,395. Racially they were Malay, 49.2 per cent; Chinese, 35 per cent; Indian, 14 per cent; European, 0.45 per cent; Eurasian, 0.4 per cent; and others, 0.9 per cent. Males greatly outnumber the females, the ratio being 1,000 to 628.

² Aperçu de la démographie des divers pays du monde, 1925.

³ Censo de población de la República de Colombia levantado el 14 de Octubre de 1918, etc. Alberto Schleisinger, Director General de Estadística. Bogotá, 1924.

⁴ Bayley, Sydney H. British Guiana. Report on the results of the census of the population, 1921. Georgetown, Demerara, 1922.

At the 1921 census the Straits Settlements, the Federated Malay States, and Jahore and Kelantan collected and compiled literacy data for the larger towns but not for the rural areas. The other four governments did not include in their census an inquiry on literacy. The data as reported⁵ summarize as follows:

Literacy in the larger towns of the Straits Settlements, the Federated Malay States, and Jahore and Kelantan

Division	Number examined	Literate	Illiterate	Not returned	Per cent of illiteracy
Straits Settlements.....	504, 095	181, 070	314, 965	8, 060	63. 4
Federated Malay States.....	190, 506	81, 820	103, 881	4, 805	55. 9
Unfederated Malay States.....	48, 525	15, 064	32, 913	548	68. 6
Total.....	743, 126	277, 954	451, 759	13, 413	61. 9

These percentages apply to the population of all ages in the groups examined. The test of literacy was the same as that used in India, "ability to write a short letter to a friend and read the answer." Of the total population, 341,631, or 10.17 per cent, are under 5 years of age, and 947,545 are under 15.

Briefly, the status of literacy was determined for 22.1 per cent, all urban, of the total population, and the index of illiteracy, 61.91 per cent, applies to all ages in that urban group. If all those under 5 (about 10.17 per cent) are considered illiterate, the rate for persons 5 years of age and over is 57.6 per cent. It is undoubtedly higher in the rural population.

Practically all the Europeans over 15 years of age were literate, and the same applied to the Eurasians, except in Malacca, where there is a large settlement of Portuguese Eurasians, mostly fishermen, the majority of whom were illiterate. Only 45 per cent of the Eurasians in the town of Malacca could read and write, compared with 74 per cent in Singapore and 70 per cent in Penang. Among the other races the most striking feature was the high percentage of literacy among the Japanese, both male and female.

Mexico.—The total population of 14,334,780, as determined by the census of November 30, 1921, is 29.16 per cent native Indians; 59.33 per cent mixed; 9.8 per cent white; 1 per cent other races; and 0.71 per cent foreigners without distinction of race.⁶ The number of illiterates—persons that can not read and write, of all ages—has been estimated at 8,208,454, out of the 13,177,368 population;⁷ the

⁵ The Census of British Malaya, 1921. By J. E. Nathan, superintendent of the 1921 census, British Malaya. London, 1922.

⁶ Estadística nacional. Revista quincenal. Organo del Departamento de la Estadística Nacional. Año II, número 42. Oct. 31, 1926.

⁷ Boletín de la Secretaría de Educación Pública. Tomo V, No. 3, Marzo. Publicaciones de la Secretaría de educación pública. Mexico, D. F. 1926.

territories of Baja California, and Quintana Roo, and the Federal District (all having a population of 979,860), and probably the foreign element, not being included. This gives 62.2 per cent illiteracy.

Philippine Islands.—By the census of December, 1918, the total population of 10,314,310 is reported as divided racially into 98.9 per cent brown; 0.5 per cent yellow; 0.4 per cent half-breed; 0.1 per cent white; and 0.1 per cent negro.⁸

The census gives the percentage of literacy as 49.2. It classes as literate the Christian Filipino population 10 years of age and over who can read any of the Filipino dialects. These number 3,138,634, or 49.2 per cent of the total native Christian population 10 years of age and over, which is 6,381,261.

The literates include those who can read or write English or Spanish. The number that can write Spanish is 664,822; those that can read Spanish, 879,811. Approximately 25 per cent of the people who can read Spanish can not write it. Assuming this percentage to be general in the islands, the percentage shown as literate under the Philippine classification should be reduced about 25 per cent to make it comparable with the classification of "ability to write in any language" used on the mainland of the United States.

From the data are omitted the 62,336 persons of foreign birth and the so-called "non-Christian" peoples numbering 932,953. No records of literacy among these groups appear; so a really accurate figure is not obtainable from the report.

The report of the Wood-Forbes special mission to the Philippines, of October 8, 1921, states the degree of literacy to be about 37 per cent.

Porto Rico.—The population of 1,299,809 is 73 per cent white, 3.8 per cent negro, and 23.2 per cent mulatto. Illiteracy statistics for each racial group are given in detail for the sexes, various age groups, and the municipalities.⁹ The definition of illiteracy is that used on the mainland of the United States. The population 10 years of age and over was 904,423, and of these, 497,089, or 55 per cent, were illiterate. Among the whites the rate is 53.1 per cent; among the negroes, 60.8 per cent; and among the mulattoes, 60 per cent.

Union of Socialist Soviet Republics.—One authority¹⁰ offers the following:

The 1920 census gave the following data in regard to the literacy of the population of the Soviet Union. For every 1,000 males, 617 were literate; 336 women

⁸ Census of the Philippine Islands. Vol. II., Population and mortality. Compiled and published by Census Office of Philippine Islands. Manila, 1921.

⁹ Fourteenth Census of the United States, 1920. Bulletin. Population: Porto Rico. Bureau of the Census, Washington, D. C.

¹⁰ Commercial yearbook of the Soviet Union, 1925. Compiled and edited by Louis Segal and A. A. Santalov. London, George Allen & Unwin (Ltd.), 1926.

out of every 1,000 were literate; while the average number per 1,000 of the total population was 465. But during the intervening period illiteracy has been gradually reduced by the various campaigns carried out for that purpose.

Another authority ¹¹ gives the following table:

Literacy data for Russia in Europe ¹—August 28, 1920

Ages	Men			Women		
	Population	Not knowing how to read or write	Per cent	Population	Not knowing how to read or write	Per cent
5-14 years.....	12, 028, 547	7, 718, 514	64. 17	12, 263, 400	8, 854, 111	72. 20
15-24 years.....	5, 218, 324	1, 367, 785	26. 21	8, 816, 254	4, 739, 563	53. 76
25-59 years.....	12, 290, 910	4, 908, 611	39. 94	16, 135, 929	12, 376, 575	76. 70
60 years or over.....	2, 882, 762	2, 156, 532	74. 81	3, 566, 182	3, 303, 282	92. 63
Age unknown.....	59, 926	50, 744	84. 68	65, 295	58, 294	89. 28
Total.....	32, 480, 469	16, 202, 186	49. 88	40, 847, 060	29, 331, 825	71. 81

¹ Not comprising the governments of Volynie, Zaporozhsk, and Podolsk, as well as different parts of the following districts: (1) The government of Vitebsk, Drissensky, and Polotzki; (2) The government of Tambov, Tambovsky, Borissoglebsky, Kirsanovsky, and Oumansky; (3) The government of Kremenchouck, Alexandriisky, Tcherkassky, and the district of Kremenchouck, entirely; (4) The government of Poltava, Koliyivsk (rural population), Godiatchsk, Konstantinogradsk, and Siriatinsk; (5) The government of Odessa, the district Pervormaisky.

By these data, 45,534,011, or 62.09 per cent, out of 73,327,529 persons 5 years of age and over could neither read nor write in 1920. The population of Russia in Europe is given as 82,827,834; so this index applies to 88.5 per cent of the total.

Literacy in Russia in 1920, by divisions ¹

	Men	Women	Total
European Russia.....	42. 2	22. 5	33. 0
Trans Caucasia.....	35. 7	21. 5	28. 1
Western Siberia.....	30. 7	13. 4	21. 8
Total.....	40. 9	22. 4	31. 9

¹ Poradnik Likvidatora Nepismennosti ta Malopismennosti. Tshetverte ponovlene i vipravlene vidanya. Vidannya Ofitsiyne. Derzhavne vidanitstvo Ukrainy, 1925.

The population of Ukraine is estimated at 26,965,144, with 48.8 per cent (4,001,921) of those 18 to 39 years of age as illiterates.

A census of the entire Union of Soviet Socialist Republics was taken on December 27, 1926, but the figures on illiteracy have not yet been made public. Some data of significance have been presented in a current yearbook.¹² The population of the entire Union was 145,906,624, including an urban population of 25,760,879. The men numbered 70,217,000; women, 75,689,000.

Voroshilov reported that 12.4 per cent of the conscripts drawn for the army in 1925 were illiterate, as compared with 19.4 per cent in

¹¹ Aperçu de la démographie des divers pays du monde, 1925.

¹² Statisticheskii Spravochnik U. S. S. R., 1927. Sentralnoye Statisticheskoye Upravlenie U. S. S. R. Izdanie TSSY, Moskva 11 B. Vuzovskii, 2.

1924. All illiterate recruits are taught to read and write during their first year of service.¹³

Brazil.—The census of September 1, 1920, showed a population of 30,635,605, of whom 23,142,248, or 75.5 per cent, could neither read nor write. Data are available for the number and per cent of illiterates for both sexes and for each State.¹⁴

The population under 15 years of age numbered 13,078,323, and of these, 11,740,533 (89.9 per cent) were illiterate. If illiteracy for the nation is computed on a basis of those 15 years of age and over, it is 64.9 per cent.

The population under 5 years of age is 4,593,163. Considering all these to be illiterate, the percentage of illiteracy for all 5 years of age and over is 71.2 per cent.

Nicaragua.—The report of the census of 1920 ¹⁵ gives the following data:

Literacy data for Nicaragua

	Number of per- sons	Per cent
Total population.....	638, 119	-----
Know how to read and write.....	176, 921	27. 73
Do not know how to read and write.....	461, 198	72. 27
Persons 10 years of age or less.....	169, 510	26. 75
Per cent of illiterates among those over 10 years of age	-----	40. 49

The figures are plainly inconsistent. If the entire number of those knowing how to read and write is credited to the population over 10 years of age—considering all 10 years or less to be illiterate—illiteracy is 62.3 per cent. Assuming one-seventh of the population to be 5 years of age and under and all illiterate, the percentage among those 5 years of age and over is 67.6. (See pp. 4 and 5.)

Portugal.—According to the census of December 1, 1920, the total population, including the 411,014 in the Azores and Madeira, was 6,032,991. The population 5 years of age and over numbered 5,428,859 and of these 3,673,209, or 67.66 per cent, could neither read nor write.¹⁶ Another authority reports 1,838,419 illiterate men (64.4 per cent) and 2,438,992 illiterate women (76.7 per cent), with the rate for the total population as 70.9 per cent.¹⁷ The two reports are consistent. The former has excluded and the latter included the 604,132 children under 5 years of age. Both are at variance with the data

¹³ Commercial Handbook of the U. S. S. R. (Union of Soviet Socialist Republics) for 1927. Published by the Soviet Union Information Bureau, Washington, D. C.
¹⁴ *Diario Oficial*. Quinta-feira 4. 4th Fevereiro de 1926. p. 2815. Rio de Janeiro.
¹⁵ Republica de Nicaragua, Censo general de 1920. Tipografia Nacional, Managua.
¹⁶ *Aperçu de la démographie des divers pays du monde*, 1925.
¹⁷ *Statesman's Year-Book*, 1925.

presented by the director general of statistics in his report on education.¹⁸

In a detailed table of comparisons for the years 1890, 1900, 1911, and 1920, he gives the percentages of illiteracy among men and women and the total for both sexes for persons over 7 years of age in each Province but not in the islands. The figures for 1920 are: Men, 46.4 per cent; women, 62.1 per cent; and for both sexes, 54.6 per cent. The director does not define illiteracy, but the lower figure leads one to believe that it is merely "inability to read."

Venezuela.—An organized census was taken January 31 to February 3, 1926. Information about the degree of instruction was gathered under the headings: Know how to read and write; know how to read but not write; know how neither to read nor write. The data for the six States of Anzoategui, Apure, Aragua, Bolivar, Carabobo, and Cojedes are available by totals and districts for the sexes.¹⁹

Literacy data for 6 States of Venezuela

State	Can read and write		Can read but not write		Can neither read nor write		Not stated		Total
	Men	Women	Men	Women	Men	Women	Men	Women	
Anzoategui.....	9, 267	10, 183	437	436	44, 049	44, 791	2, 235	2, 396	113, 794
Apure.....	4, 365	4, 030	221	255	16, 246	15, 911	915	1, 050	42, 993
Aragua.....	15, 417	14, 826	814	1, 023	34, 594	36, 424	1, 275	1, 665	106, 038
Bolivar.....	13, 974	14, 127	499	590	21, 200	21, 464	1, 781	1, 592	75, 227
Carabobo.....	20, 930	21, 840	843	1, 231	45, 896	51, 192	2, 419	2, 853	147, 204
Cojedes.....	3, 388	3, 448	210	262	18, 240	19, 164	18, 641	18, 799	82, 152
Total.....	67, 341	68, 454	3, 024	3, 797	180, 225	188, 946	27, 266	28, 355	567, 408

Disregarding 55,621 for whom literacy data are not given, out of a total of 511,787 persons, 369,171, or 72.1 per cent, can neither read nor write; 6,821, or 1.4 per cent, can read but not write; and 135,795, or 26.5 per cent, can read and write. An indigenous population of about 55,000 is not included in these figures.

About one-fifth (21.22 per cent) of the population of the Republic was in these States in 1920, so they may be considered as fairly representative.

Dominican Republic.—Under the heading "grade of instruction" data gathered at the first national census taken in July of 1920 are reported ²⁰ by Provinces for those who (1) can read, (2) can not read,

¹⁸ Instrução publica. Republica Portuguesa. Ministerio das Finanças. Direcção Geral de Estatistica. La Repartição. Dados estatísticos referentes aos annos lectivos de 1919-20 e 1920-21. Lisboa, Imprensa Nacional, 1925.

¹⁹ Quinto censo nacional de los Estados Unidos de Venezuela decretado el 15 de Agosto de 1925, por e General Juan Vicente Gomez, Presidente de la Republica y levantado en los días 31 de enero y 1, 2, y 3 de febrero de 1926. Tomo primero.

²⁰ Primer censo nacional, 1920, Republica Dominicana, Santo Domingo.

and (3) minors. The total population was 894,665, of whom 155,229, or 17.35 per cent, can read; 363,265, or 40.6 per cent, can not read; and 376,171, or 42.05 per cent, are minors. The minor group apparently includes those under 13 years of age. Since the data relative to ability to read among the minors are not given, the conclusion is that for persons 13 years of age and over the illiteracy rate is 70 per cent.

Guatemala.—Illiteracy data were gathered at the census of August 28, 1921, and are reported somewhat in detail.²¹

Illiteracy in Guatemala, 1921

	Male	Female	Total
Population in 1921.....	991, 896	1, 013, 004	2, 004, 900
Illiterates over 7 years of age.....	666, 081	709, 737	1, 375, 818
Illiterates under 7 years of age.....	212, 923	207, 309	420, 232
Total illiterates.....	879, 004	917, 046	1, 796, 050
Literates over 7 years of age.....	112, 732	95, 677	208, 409
Literates under 7 years of age.....	228	213	441
Total literates.....	112, 960	95, 890	208, 850

Illiteracy in Guatemala in 1893 and 1921 compared

	1893	1921
Total population of the Republic.....		2, 004, 900
Population, excluding children under 7 years.....	1, 092, 178	1, 584, 668
Illiterates over 7 years.....	967, 954	1, 375, 818
Percentage of illiterates over 7 years.....	88. 63	86. 82
Percentage of decrease in illiteracy.....		1. 81

Dutch East Indies.—These possessions comprise Java and Maduro, Sumatra, Borneo, Molucca Islands, Celebes Island, Timor, Riau-Lingga Archipelagoes, and part of New Guinea, an area of 733,642 square miles. By the census of 1920 the total population was computed ²² as 49,350,834. Of these, 97.8 per cent, or 48,304,620, are natives; 1.8 per cent, or 876,506, foreign Asiatics; and 0.4 per cent, or 169,708, Europeans. In 1920, about 7 per cent (825,636) of the 11,867,000 native children were attending school. The foreign Asiatics had in school 8.2 per cent (12,957) of their 158,000 children; the Europeans, 87.4 per cent (28,571) of 32,700 children.

As to literacy (ability to read and write) and knowledge of the Dutch language the data (for persons over 15 years of age) are summarized as follows:

²¹ Censo de poblacion de la República, levantado el 28 de Agosto de 1921.
²² Statistisch Jaaroverzicht van Nederlandisch-Indie, vervolg van: Jaarcyfers voor Het Koninkrijk der Nederlanden (Kolonien), Jaargang 1925.

Literacy and Dutch literacy among persons over 15 years of age in the Dutch East Indies

	Europeans		Natives		Foreign Asiatics	
	Men	Women	Men	Women	Men	Women
Per cent of literacy in the population.....	84.1	78.88	5.91	0.96	32.86	7.01
Per cent of population knowing Dutch.....	79.82	74.80	.20	.05	1.38	.85
Per cent of literates knowing Dutch.....	94.91	94.84	3.44	5.10	4.19	12.11

For the total population the following table is presented:

Illiteracy in the total population in the Dutch East Indies

Ages	Male			Female		
	Total number	Can not read or write	Per cent	Total number	Can not read or write	Per cent
0 to 14 years.....	10,074,411	9,651,397	95.8	9,078,722	8,982,215	98.94
15 years and over.....	13,406,858	12,154,942	90.66	14,738,065	14,517,947	98.51
Total.....	23,481,269	21,806,339	92.87	23,816,787	23,500,162	98.67

Total population used in the computation.....	47,289,056
Illiterates, both sexes.....	45,306,501
Per cent of illiteracy, all ages.....	95.7
Per cent of illiteracy, 15 years of age and over.....	94.8
Per cent of illiteracy, under 15 years of age.....	97.2

Egypt.—A census of Egypt was taken in the spring of 1927, but the results are not yet published. Data are reported ²³ for the enumeration of March 7, 1917. The total population by sexes for the three sections of the kingdom was:

Population of Egypt in 1917

Section	Men	Women	Total
Gouvernorats.....	741,053	695,414	1,436,467
Basse-Egypt.....	3,019,790	3,075,126	6,094,916
Haute-Egypt.....	2,608,674	2,578,198	5,186,872
Total.....	6,369,517	6,348,738	12,718,255

The division of the population according to degree of instruction for all those 5 years of age and over was:

Illiteracy among persons 5 years of age and over in Egypt

Section	Literates		Illiterates		Under 5 years and unknown
	Men	Women	Men	Women	
Gouvernorats.....	207,263	80,202	420,223	495,343	233,436
Basse-Egypt.....	331,199	18,951	2,242,818	2,589,728	912,220
Haute-Egypt.....	210,332	15,359	2,030,215	2,172,428	758,538
Total.....	748,794	114,512	4,693,256	5,257,499	1,904,194

²³ Annuaire statistique de l'Égypte, 1923-24. Seizième année. Le Caire, Imprimerie Nationale, 1925.

By these data 9,950,755, or 92 per cent, of the 10,814,061 persons 5 years of age and over, can neither read nor write. The number of persons under 10 years of age was 3,556,311.

India.—Data on literacy in India were gathered at the census of 1921. They are reported in detail by Provinces, age periods, sexes, religious beliefs, castes, urban and rural, progress by decades, etc.²⁴

In this census, as in 1911, the definition was laid down that “only those were to be considered literate who could write a letter to a friend and read the answer to it.” The total population was 318,942,480. The status of literacy was not recorded for 2,887,249. The data are:

Population of India for which literacy data were gathered

Age	Total	Males	Females
Total.....	316, 055, 231	162, 465, 129	153, 590, 102
0-10.....	86, 403, 798	43, 330, 934	43, 072, 864
10-15.....	36, 741, 852	20, 171, 326	16, 570, 526
15-20.....	26, 144, 890	13, 648, 824	12, 496, 066
20 and over.....	166, 059, 878	84, 930, 170	81, 129, 708
Age unspecified.....	704, 813	383, 875	320, 938

Using the same age groups the absolute figures for literacy in any language are:

Literacy in India in any language

Age	Literate			Illiterate		
	Total	Males	Females	Total	Males	Females
Total.....	22, 623, 651	19, 841, 438	2, 782, 213	293, 431, 580	142, 623, 691	150, 807, 889
0-10.....	938, 849	699, 819	239, 030	85, 464, 949	42, 631, 115	42, 833, 834
10-15.....	2, 683, 951	2, 220, 449	463, 502	34, 057, 901	17, 950, 877	16, 107, 024
15-20.....	2, 825, 735	2, 374, 049	451, 686	23, 319, 155	11, 274, 775	12, 044, 380
20 and over.....	16, 164, 574	14, 536, 656	1, 627, 918	149, 895, 304	70, 393, 514	79, 501, 790
Age unspecified.....	10, 542	10, 465	77	694, 271	373, 410	320, 861

Literacy in English is reported as follows:

Literacy in India in English

Age	Literate in English		
	Total	Males	Females
Total.....	2, 527, 350	2, 289, 188	238, 162
0-10.....	60, 901	44, 395	16, 506
10-15.....	282, 654	246, 134	36, 520
15-20.....	438, 931	398, 174	40, 217
20 and over.....	1, 745, 286	1, 600, 367	144, 919
Age unspecified.....	118	118	-----

¹ Marten, J. T., Census of India, 1921. Vol. I. India, Parts I and II. Report. Calcutta, India, 1924.

The percentages of literacy computed from the above data by age groups and sex are:

Literacy in India by age groups and sex

Ages	Total	Men	Women	Ages	Total	Men	Women
0-5.....				20 and over.....	9.8	17.1	2
5-10.....	2.1	2.9	1	All ages.....	7.2	12.2	1.8
10-15.....	7.4	11	2.8	5 and over.....	8.2	13.9	2.1
15-20.....	10.9	17.4	3.6	10 and over.....	9.5	16.1	2.3

The Union of South Africa.—The population of all British South Africa is reported for an enumeration of May 3, 1921.²⁵ The statistics for the Union of South Africa are given in detail for a considerable number of items. They are not given for literacy among the European, Asiatic, and mixed races of the Union. They are given for the 4,697,813 native Bantus, who constitute 67.8 per cent of the total population of 6,928,580 in the Union. The absolute figures and the percentages for the latest three censuses are:

Degree of education among the Bantus of the Union of South Africa

Particulars	1904	1911	1921	Number per 1,000		
				1904	1911	1921
Read and write.....	132,738	273,082	455,398	51.3	68.1	96.9
Read only.....	29,355	46,593	68,930	11.3	11.6	14.7
Neither read nor write.....	2,424,129	3,696,479	4,161,361	935.6	919.8	885.8
Unspecified.....	4,724	2,132	12,124	1.8	.5	2.6
Total.....	2,590,946	4,019,006	4,697,813	1,000.0	1,000.0	1,000.0

These figures apply of necessity to the total Bantu population. The results of trying to determine the exact ages of the Bantus were so unsatisfactory that use is now made of only four rough groupings: Infancy (less than 1 year); childhood (1 to 14 years); maturity (15 to 50); and old age (50 and over). In 1921, 237,702 were classed as infants, and 1,718,714 as being in childhood.

²⁵ Union of South Africa. Office of Census and Statistics, Pretoria. Third census of the population of the Union of South Africa, enumerated May 3, 1921. Report with summaries and analysis of the detailed tables, Parts I to IX. Pretoria, 1924.

CHAPTER V

Summary of Data Presented and of Areas for Which Adequate Data are Not Given

The foregoing tables and discussions present the statistics of illiteracy for 62 political divisions embracing an area of 30,955,058 square miles and inhabited near the year 1920 by 1,086,523,685 people. The area and the number of inhabitants constitute, in each case, about 60 per cent of that of the earth. Roughly, one-fourth of these people are under 10 years of age, leaving about 814,900,000 of the ages of 10 and over, and if the census reports and indices of illiteracy commonly used present a picture at all true, a little more than 50 per cent of them can not read and write. The situation is shown graphically in the following maps of the continents.

For ease of reference, the political divisions are listed here according to the percentage groupings shown in the tables.

Less than 10 per cent.—Australia, Belgium, Canada, Canal Zone, Czechoslovakia, Denmark, England and Wales, France, Irish Free State, the central islands of Japan, the Netherlands, New Zealand, Norfolk Island, North Ireland, Norway, Europeans in Papua, Samoa, Scotland, Sweden, Switzerland, Europeans in the Union of South Africa, and the continental United States.

10 to 20 per cent.—Estonia, Hawaii, Hungary, and Europeans in New Guinea.

20 to 30 per cent.—Alaska, Argentina, Guam, Italy, Latvia, the Virgin Islands, Newfoundland, and Labrador.

30 to 40 per cent.—Cuba, Finland, Lithuania, Poland, Uruguay, and Yugoslavia.

40 to 50 per cent.—Bulgaria, Chile, Jamaica, the Leeward Islands, Rumania, and Spain.

50 to 60 per cent.—Ceylon, Colombia, British Guiana, British Malaya, Mexico, Porto Rico, the Union of Socialist Soviet Republics, and the Philippines.

60 to 70 per cent.—Brazil, Nicaragua, Portugal, and Venezuela.

70 to 80 per cent.—Dominican Republic.

80 to 90 per cent.—Guatemala.

90 to 100 per cent.—Dutch East Indies, Egypt, India, and the Bantus in the Union of South Africa.

Areas for Which Adequate Data Are Not Given

No adequate data on illiteracy are presented here for approximately 733,500,000 of people, distributed among the continents as follows: Asia, 528,901,886; Africa, 110,154,165; South America, 11,676,297; Oceania, 592,817; North America, 5,831,561; and Europe, 75,386,270. The areas in which those millions live are shown in solid black on the maps. The reader must not conclude that all the political divisions shown in black have a high rate of illiteracy. Several of them undoubtedly have very low rates.

Asia.—Most of these millions are in Asia and, to be more specific, in China, with an estimated population of 436,094,953; Japanese possessions, 931,913; British possessions, 8,668,080; Italian concessions, 110,269; Portuguese concessions, 1,040,671; French India and Indo-China, 19,388,512; Siam, 9,207,355; Nepal, 5,600,000; Bhutan, 250,000; Afghanistan, 12,000,000; Persia, 9,000,000; Syria and Lebanon, 2,536,429; Iraq, 2,849,282; Palestine, 757,182; Transjordan, 200,000; Arabia, including Nejd, Yemen, Aden, Oman, and Kuwait, estimated at 10,000,000; and Turkey in Asia, 10,267,240.

Many of the numbers given above are merely estimates. Taking a census by the methods adopted in western countries has never been attempted in China, and the estimates range from 318,000,000 to 444,000,000. The figures for Persia, Nepal, Bhutan, Afghanistan, and Arabia are largely conjectural. Naturally it follows that almost no data on illiteracy are to be had.

The population of Siam in 1911–12 was 8,266,408. Excluding the Circle of Krung Deb, with a population of 931,171, there were 2,781,284 illiterate men and 3,631,225 illiterate women.¹ The term "illiterate" is not defined. On the basis of the total population, excluding Krung Deb, this would be 87.4 per cent, and for those 5 years of age and over, approximately 85 per cent. The Minister for Foreign Affairs reported in August, 1926, that the average of illiteracy (not defined) was about 79 per cent in 1918–1920. The reduction of illiteracy in Siam is going on rapidly. (See p. 58.)

The illiteracy rate is known to be high in all these political divisions. The European population resident in them can not be so much as one-fourth of 1 per cent of the total; so, however literate it may be, it would have little effect on a general average.

Africa.—The population of Africa around 1920 is estimated at 129,801,000.² We have offered illiteracy data for only 19,646,835, or for Egypt and the Union of South Africa. The remaining 110,154,165 are less than 2 per cent of the European races. The illiteracy rate is very high.

¹ Statistical yearbook of the Kingdom of Siam, 1922. Seventh number. Published by the Department of General Statistics, Ministry of Finance. English edition, 1922.

² Aperçu de la démographie des divers pays du monde, 1925.

South America.—The South American countries for which no data are given include Ecuador, 2,000,000; Peru, 5,550,000; Bolivia, 2,889,970; Paraguay, 1,000,000; French Guiana, 44,202; Dutch Guiana, 135,754; and Curacao, 56,371. Experience has shown that in order to have a low rate of illiteracy a country must keep approximately one-fifth of its population in attendance at educational institutions of some kind. The first four of these countries have only small fractions, from 3 to 7 per cent, of their people in school, and the illiteracy rate must be high in all of them. The others have from 10 to 16 per cent.

Oceania.—The British possessions have a population of 401,902 and include Western Samoa, the Fiji, Gilbert, and Ellice Islands, the Solomon Islands, Tonga, and Nauru. The French possessions, population 138,693, are New Caledonia, New Hebrides, and the French Establishments in Oceania. The Japanese Pacific Islands have a population of 52,222. The total population of 592,817 is from 3½ to 4 per cent European or Japanese. Several of the islands have excellent school systems. The American Consul at Papeete reports that there is but little illiteracy among persons under 30 years of age in French Oceania.

North America.—The Latin-American countries not reported are Honduras, 773,408, Salvador, 1,550,634; Costa Rica, 485,050; Panama 446,098; and Haiti, 1,631,260. About 12 per cent of the population is enrolled in schools in Honduras and Panama; about 5 per cent in Salvador and Haiti.

The British possessions include British Honduras, 45,317, and the various islands: Barbados, 156,312; Bermudas, 20,127; Bahamas, 53,031; Falkland, 3,431; Windward, 163,477; and Cayman, 10,865. From one-seventh to one-fifth of the population is enrolled in schools and the educational systems are fairly adequate.

The French possessions are Guadaloupe and its dependencies, Martinique, St. Pierre, and Miquelon, total population, 478,196. Approximately one-tenth of the population is in attendance at some school.

Greenland has a good school system for its population of 14,355 spread out over a coast "so long that if it were straightened out it would reach from the Scaw to North Africa." The illiteracy rate is low.

Europe.—Among the countries of Europe for which we are unable to quote accurate, authentic statistics several undoubtedly have illiteracy rates far below 10 per cent or even 5. These are: Germany, with a population of 59,852,204; Austria, 6,535,759; Liechtenstein, 11,000; Luxemburg, 260,767; the Free City of Danzig, 383,995; and the Channel Islands and the Isle of Man, 150,514. The well-known attitude of Germany toward education and the strictness with which

its compulsory education laws were and are enforced insures that the percentage of illiteracy in that country shall be very low, probably less than 1 per cent among persons 10 years of age and over. Former Austria was a country of heterogeneous population and had an illiteracy rate well over 5 per cent. Present Austria is homogeneous; about 97 per cent German-speaking and probably with little illiteracy. The Free City of Danzig continues to maintain the excellent school system established under German rule. This group of divisions with a total population of 67,016,702 probably has fewer than 5 per cent of its people 10 years of age and over that can not read and write.

Iceland, with 94,690 people; Andorra, 5,231; San Marino, 12,000; Monaco, 22,153; Gibraltar, 18,540; Malta, 224,680; and Albania, 803,959, probably have somewhat higher rates.

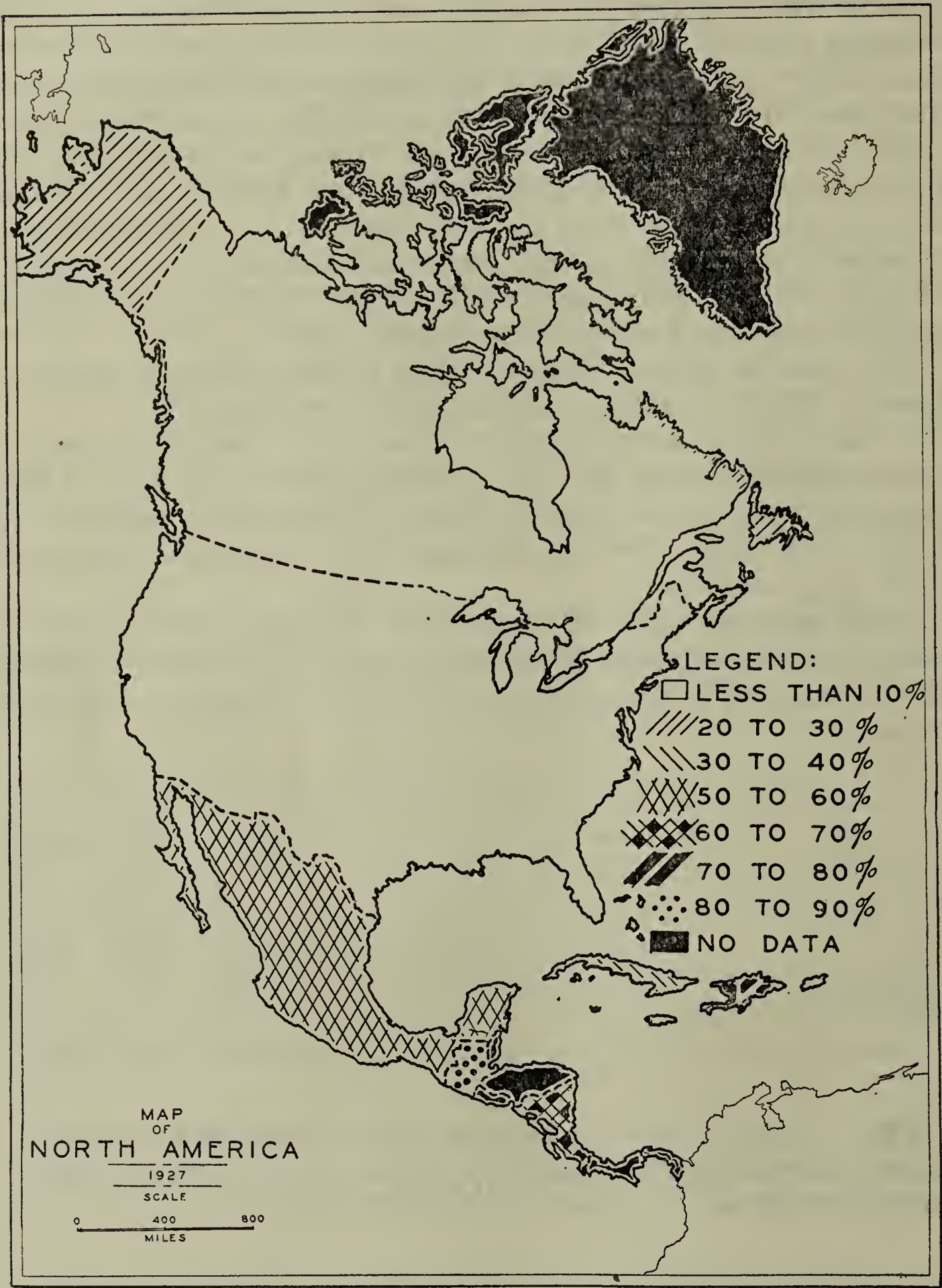
The rates in Greece, with 5,536,375 inhabitants, and Turkey in Europe, with 1,474,403, are undoubtedly very high.

If the reader wishes to indulge in some very crude but not entirely unwarranted estimates, he may take the figures given for the total unreported population in each of the continents and subtract one-fourth. The remainder will be roughly the number of persons 10 years of age and over.

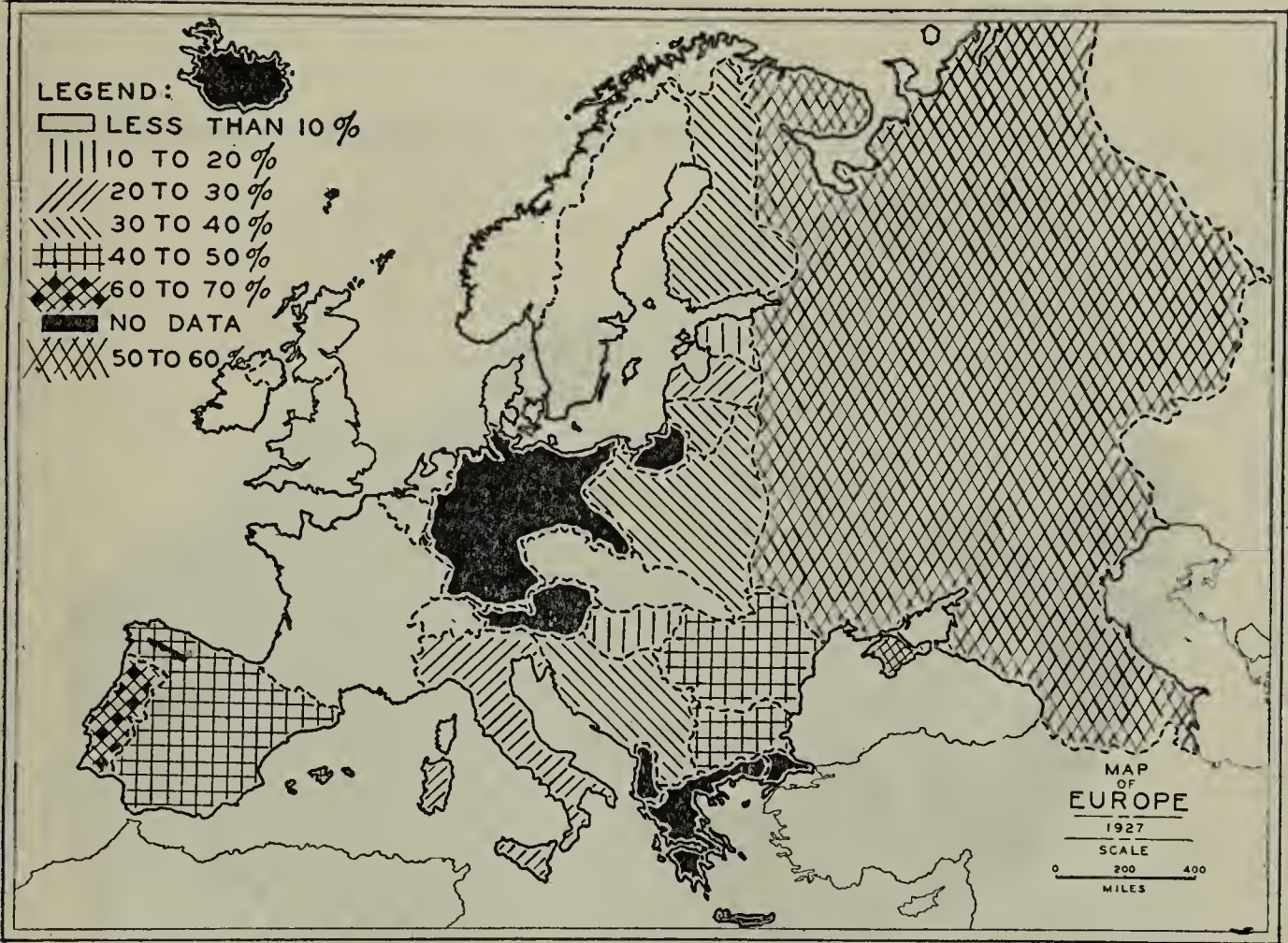
Applying to Asia and Africa an illiteracy index of 90 per cent; to South America, 50 per cent; to Oceania, 30 per cent; to North America, 40 per cent; and to Europe, 10 per cent, he will have an estimate as follows:

Continent	Population 10 years of age and over	Index (per cent)	Number of illiterates
Asia.....	396, 676, 414	90	357, 008, 770
Africa.....	82, 615, 623	90	74, 354, 060
South America.....	8, 757, 223	50	4, 378, 610
Oceania.....	444, 613	30	133, 380
North America.....	4, 373, 670	40	1, 749, 470
Europe.....	56, 539, 700	10	5, 653, 970
Total.....	549, 407, 243	80. 6	443, 278, 260

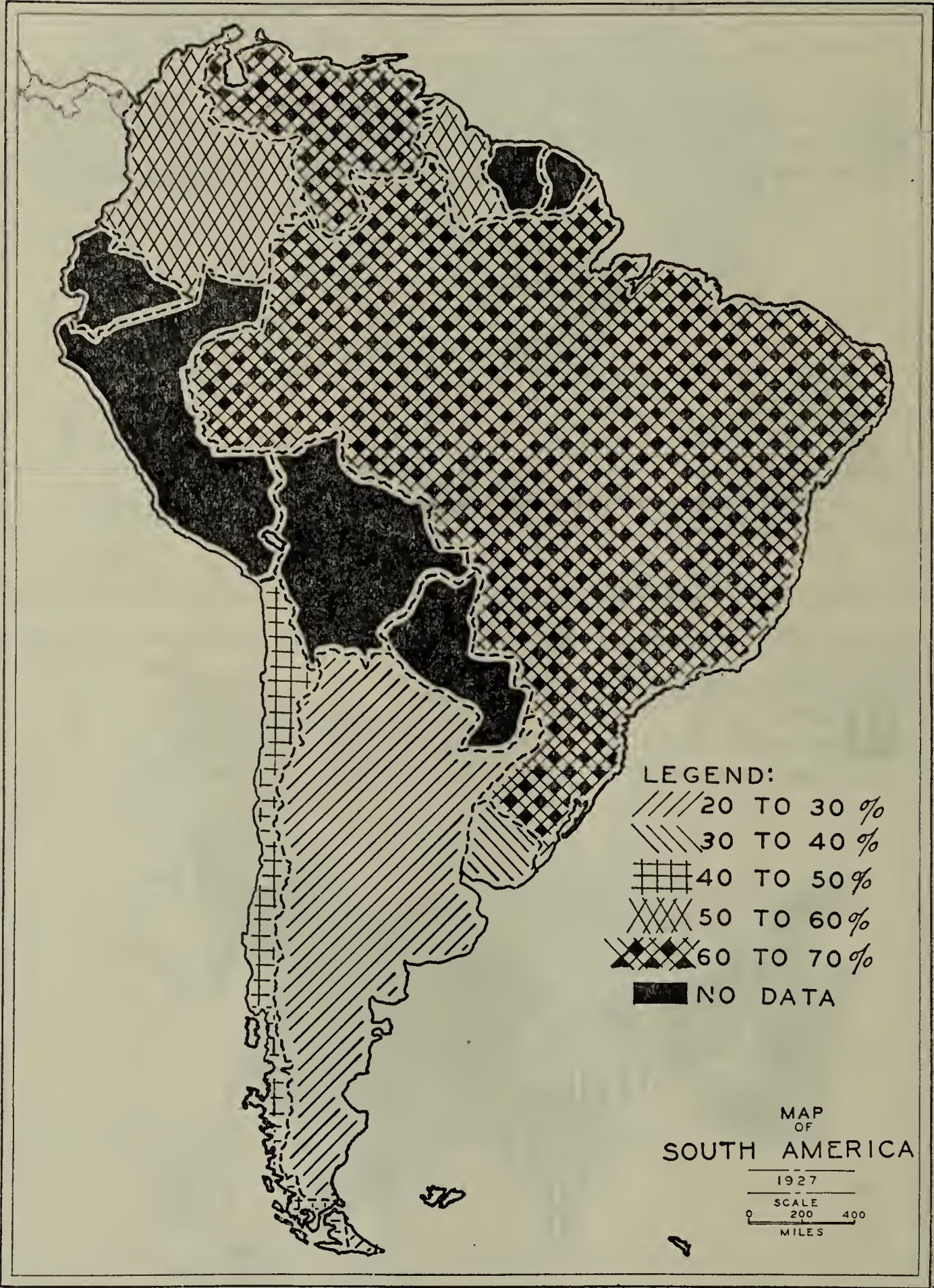
This combined with the data in the first paragraph on page 48 makes a population 10 years of age and over of 1,363,900,000, of which 850,500,000 are illiterate. That is 62 per cent.



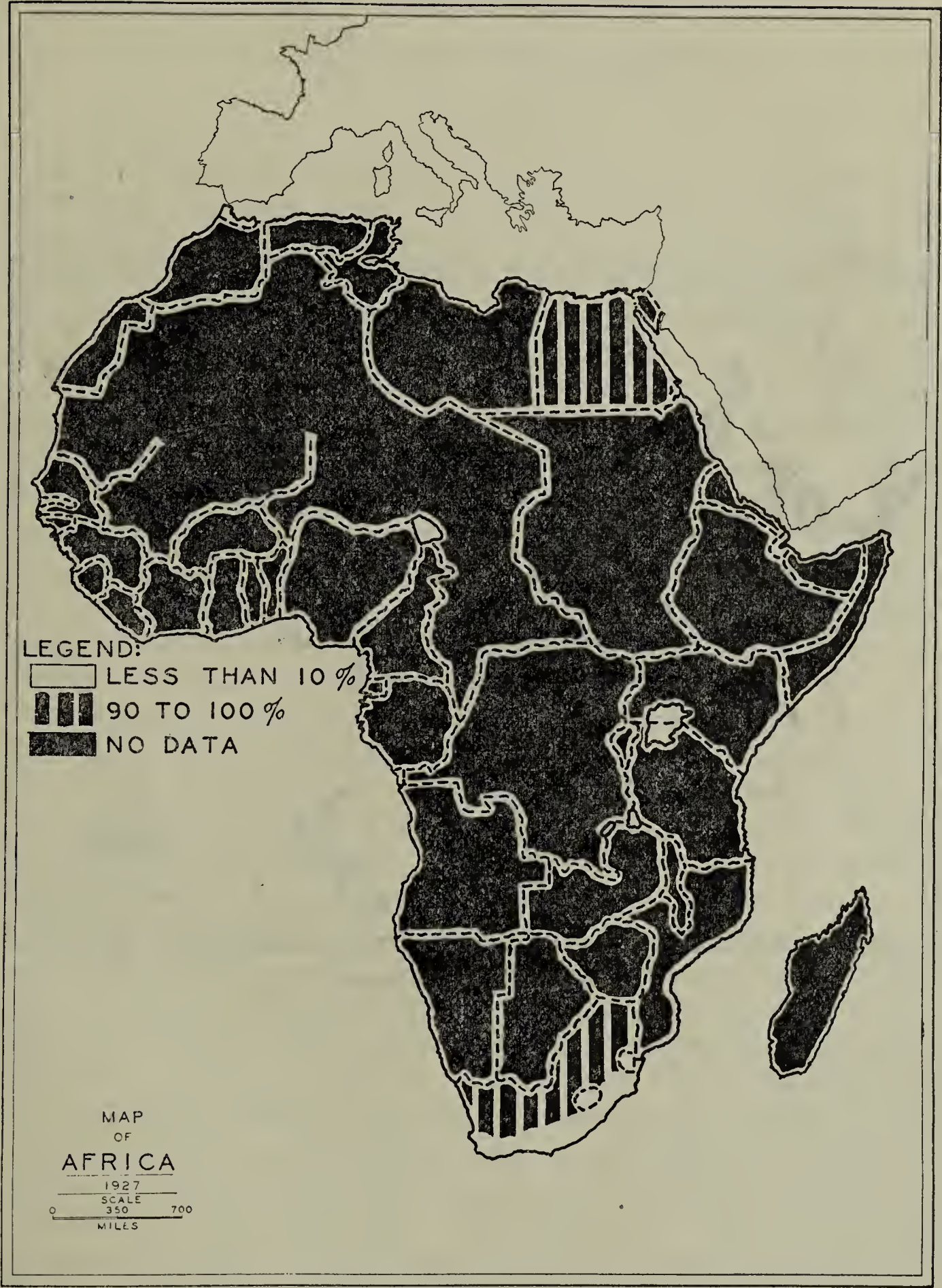
Percentage of Illiteracy



Percentage of Illiteracy



Percentage of Illiteracy



Percentage of Illiteracy



Percentage of Illiteracy

CHAPTER VI

Is Illiteracy Decreasing ?

It would be intensely interesting to inquire into the remote causes of illiteracy; to compare the rates in different races; to work out correlations between industrial groups and illiteracy indices; to follow the history of education and note the fluctuations in literacy due to well or ill conceived school laws and national policies of education, to wars, and to great social and economic movements; to inquire into the attitudes of the chief religions of the world toward education and their effects on the literacy figures; and to note the relationships that exist between climate and general public health and the amount of illiteracy. Neither time, the scope of this investigation, nor the present status of the data permits such an exhaustive study. It is sufficient to point out here that the areas of least illiteracy which are shown on the maps correspond very closely with the areas of "high climatic energy" and of better health conditions as indicated in a recent book dealing with man and his environment.¹

Whatever the remote causes of illiteracy may be, the immediate cause is insufficient school accommodation and poor or poorly enforced compulsory education laws. The ultimate eradication of illiteracy is a matter of prevention, not of cure, and prevention lies in adequate systems of common schools. The recognition of this as a matter of course is well expressed in the replies from Norway, Sweden, and Switzerland which we have quoted. It has been made the subject of careful study in Canada.² The combined public and private school systems of the world have not been, and are not now by half or more, equal to the task of making literate all the young people mentally and physically capable of being so. The present widely extended movements to eradicate adult illiteracy are in the nature of curing a trouble caused by that lack, and their success is encouraging, not only in the matter of reducing illiteracy, but in gaining new knowledge of the educability of the adult mind. They will need to be continued and improved for many years to come, but they should be accompanied by energetic efforts to strengthen the means of prevention.

Undoubtedly illiteracy, world illiteracy, is on the decrease. The trend of most of the major social and political movements in the last

¹ Huntington, Ellsworth. *The pulse of progress*, 1926.

² Dominion of Canada. Dominion Bureau of Statistics. *Illiteracy and school attendance in Canada*. Ottawa, 1926.

half or quarter century was in directions that stimulate and require greater literacy.

The theory that education should be limited to the governing and privileged classes met with many sharp reverses. Among several population groups, some of them very large ones, it was replaced by the principle of education for all. The semicentenary in Japan, 1922, of the issuance of the code of popular education in 1872 was the celebration of 60,000,000 of people over the development of a complete school system that now enrolls 99 per cent of all children of school age, as against 31 per cent that were attending school at the beginning of the half century. The conception of popular education began to take hold in Siam in 1872, but grew very slowly until 1923, when the primary education law went into effect. Since then progress has been rapid in this nation of 9,000,000. About 1900 the reversal of policy was effected for 10,000,000 of people in the Philippines and Porto Rico, and in 20 years the illiteracy rates were reduced by 30 per cent or more.

The three great empires, China, Russia, and Turkey, with 590,000,000 of people, adopted democratic forms of government, and with them the corollary of free public education. The mass education movement in China,³ involving as it does the abolition of the classical language and the adoption of Pei-hua for literary purposes, is the most comprehensive plan of deliberately changing a written language and reducing illiteracy ever undertaken. If it succeeds to the point of making 300,000,000 of Chinese literate, world illiteracy will have been reduced by something more than one-third.

Within the Union of Soviet Republics the reduction of illiteracy is a fixed policy of both the Union Government and those of the separate Republics. The annual report for 1926-27 of the Peoples' Commissar of Education in the Russian Socialistic Federated Republic states:⁴

According to the official reports of the provincial political educational departments, the number of "likpunkts" (centers for the liquidation of illiteracy) was as follows:

"Likpunkts" of instruction (regular schools for illiterates, partly supported from the Union budget.....	1, 266
"Likpunkts" (in 28 administrative units).....	15, 934
Group and individual centers in 17 administrative units.....	10, 398
Schools for semiliterates.....	3, 127
Total number of establishments.....	30, 725

³ Yen, Y. C. James. How to educate China's illiterate millions for democracy in a decade. Bul. 1923, No. 15, Vol. II. Chinese Nat. Assn. for the Advancement of Educ., Peking, China.

⁴ Narodni Komissariat Prosveschenia R. S. F. S. R.—Narodnoye Prosveschenie in R. S. F. S. R., 1926-1927 uchebnomu godu.

For the year 1925-26 incomplete data show that 859,000 illiterates and 64,000 semiliterates, or a total of 923,000, were instructed. According to reports from 10 Provinces, individual group instruction this year was more successful than during the year previous. They were instructing 23 per cent of the number of illiterates as against 12 per cent in 1924-25. In certain Provinces the percentage was higher, for example, 62 per cent in North Dwina and 44 per cent in Yaroslav.

A comparison of the totals for 1925-26 with those of 1924-25 shows a decrease of 3,515 in the number of "likpunkts" and 66,077 in the number of participants.

Education in Turkey has been brought much closer to, and within easier reach of, the poor and those far removed from the towns.

Since 1918 the Secretariat of Education in Mexico has been carrying on organized attempts to educate a greater proportion of the 14,000,000 of people and to reduce illiteracy.

The readjustment of national boundaries in Europe and Asia subsequent to the World War and the establishment of new national units resulted in smaller political divisions more nearly coincident with ethnic groups and more homogeneous in population. At the same time it gave an added dignity to languages that had theretofore been little recognized. Undoubtedly this has had, and will continue to have, a strong influence in reducing illiteracy. The smaller ethnic groups of Europe that have for many years maintained their own national governments are almost free of illiteracy. It is reasonable to expect that the peoples of Finland, Estonia, Latvia, Lithuania, Poland, Czechoslovakia, Yugoslavia, Saorstat Eireann, and Palestine, with their closer interest in their governments and their increased pride of language, will continue the active efforts upon which they have all entered to maintain adequate school systems. The censuses to be taken around 1930 will be for most of them their second national inventories since the World War. The gains they have made in the decade in an educational way will be awaited with interest.

The provision for education of minorities in their mother tongues, and the recent recognition by several countries of two or more languages, as those of the courts and of the governments, must tend to increase literacy. Not a few of the areas of the world owe their high rates of illiteracy to attempts to force parents to educate their children in a tongue foreign to them and in racial ideals with which they are not in sympathy. The better recognition of language rights that has come in the last quarter of a century must result in more publications, more vehicles for the carrying of knowledge, and schools more in sympathy with the homes.

With the exceptions of Abyssinia, Egypt, and Liberia, Africa is almost wholly under European control. The European population

is increasing in numbers; and literacy, through missionary, governmental, and private effort, is growing with it. Immigration is turning in that direction, and science is bent upon preventing or curing the diseases that make much of the continent uninhabitable by Caucasians.

Another important factor in the lessening of illiteracy is the changed attitude toward the education of women and girls. The active opposition to, or apathy toward it, as being much less important than the education of boys and men, is disappearing. In those countries where the change has had time to show its effects, such as the United States of America, New Zealand, and the Commonwealth of Australia, the illiteracy index is lower for women than it is for men, and particularly so in the younger age groups. Among countries where it has not yet come into full effect, we have such statistics as the following:

Comparative indices of illiteracy for men and women in seven countries

Political division	Per cent of illiteracy among—		Political division	Per cent of illiteracy among—	
	Men	Women		Men	Women
Bulgaria.....	37. 24	62. 81	Egypt.....	86. 41	97. 90
Spain.....	39. 72	53. 04	India.....	87. 79	98. 19
Portugal.....	60. 10	74. 36	Ceylon.....	43. 7	78. 8
Russia in Europe.....	49. 88	71. 81			

In these countries the discrepancy is not so great among the lower age groups.

The industrial revolution, the wealth of scientific discovery and of invention, the spread of vocational education, and the new interest in health as a national asset have all been reflected in better systems of education, with consequent decrease of illiteracy and near illiteracy.

The statistical evidence of lower illiteracy rates is fairly complete—in the countries for which there are data on illiteracy—and conclusive. In the following data no allowance is made for differences in criteria used in the various countries, but for each country cited care has been taken to see that the figures for the different dates are comparable.

Europe.—The proportion of the population of Belgium, not including those of less than 8 years, that could not read and write was 30.26 per cent in 1880; 25, in 1890; 19.1, in 1900; 13.1, in 1910; 7.9, in 1920. The percentage of illiterates among the military contingents of the Netherlands decreased from 18.2, in 1865 to 12.3, in 1875; 10.5, in 1885; 5.4, in 1895; 2.4, in 1905; 0.6, in 1913; and 0.35, in 1923.

The rates for France are 16.5 per cent in 1901; 12.4, in 1906; and 8.2, in 1921. Doctor Stella reports for Italy, 68.8 per cent illiteracy in 1872; 48.5, in 1901; and 37.6, in 1911. The résumé for Spain is 63.79 per cent in 1900; 59.39, in 1910; and 52.23, in 1920. For continental

Portugal the data of four consecutive censuses show 61.9 per cent in 1890; 59.9, in 1900; 56.4, in 1911; and 54.6, in 1920. The reduction in Bulgaria was from 72.09 per cent of illiteracy in 1905 to 55.54 per cent in 1920.

Africa.—Among the European population of the Union of South Africa the percentages of illiteracy for the years 1904, 1911, and 1918, were, respectively, 4.11, 2.34, and 1.24. Among the Bantus in the Union for the years 1904, 1911, and 1921, they were 93.56 per cent, 91.98, and 88.58. In the decade 1907 to 1917, the reduction in Egypt was about 2 per cent.

Asia.—The criteria for determining illiteracy in India were so changed in 1911 that comparisons with earlier data can not be made. In the decade 1911 to 1921 the number of literate persons rose from 18,500,000 to 22,600,000, or 22 per cent, against an increase in the population of 1.2 per cent. If persons under 10 years are excluded, the increase of literate males is 16 and that of literate females is 71 per cent. The improvement results in raising the proportion of literate males per 1,000 from 140 in 1911 to 161 in 1921 in the population, and of literate females from 13 to 23. The number of literate women throughout India is still small, but there has been a steady advance in the education of girls in the last 20 years.

The progress of literacy in Ceylon is shown in the table here given. The continuing increase since 1881 is attributed to the adoption of better educational policies.

Progress of literacy in Ceylon

Particulars	1881	1891	1901	1911	1921
Per cent of literacy:					
Among men.....	28.9	36.1	42	47.2	56.3
Among women.....	3.1	5.3	8.5	12.5	21.2

Statistical data for decreases in illiteracy in the Netherland East Indies are not offered. A sketch of education in that colony, dated 1914, states:⁵

In order to disseminate some elementary education as widely as possible a scheme of popular schools, so-called "village schools," has been brought into action, which reaches 10,000 children that formerly did not receive any education. Within a few years 3,000 of these schools were erected, and many more are planned for the future.

A remarkable feature in the awakening with regard to education is furthermore the demand for education of girls, which is beginning to make itself felt amongst all communities and nationalities. All the elementary as well as the secondary schools, with the exception of some purely technical schools preparing for more masculine occupations, are now open to female pupils.

⁵ Netherland East Indian San Francisco Committee. Department of Industry, Agriculture, and Commerce. No. VI. Education in Netherland East India. 1914.

Oceania.—The progressive change in the literacy and illiteracy rates for Australia is reported as follows:⁶

Per cent of educated and of illiterate persons in Australia as shown by six consecutive censuses

Particulars	1871	1881	1891	1901	1911	1921
Read and write.....	62.39	70.73	75.43	80.04	84.54	84.81
Read only.....	10.68	6.15	3.43	2.08	.42	.28
Can not read.....	26.93	23.12	21.14	17.88	15.04	14.91

These percentages are based on the total population, and since the percentages of those that can not read are relatively low, the inclusion of the children under 5 years of age makes a proportionately high increase in them. An approximation for those 5 years of age and over that can not read may be had by subtracting 11 per cent—the proportion in Australia of the population under 5 years of age—from the index for “can not read” for each year, and dividing the remainder by 89. (See pp. 4 and 5.)

The percentages among those 5 years of age and over at successive censuses in New Zealand are as follows:⁷

Per cent of literacy in New Zealand as shown by six censuses

Particulars	1874	1881	1891	1901	1911	1916
Read and write.....	82.85	85.98	89.26	93.37	94.20	95.06
Read only.....	9.33	6.50	4.47	2.15	.83	.77
Can not read.....	7.82	7.52	6.27	4.48	4.97	4.17

North America.—Progress in the elimination of illiteracy in Canada is measurable directly for the ages of 10 and over and by age groups as between 1891 and 1921. No direct comparison is available for 1901. The percentage illiterate of the population 10 years and over, exclusive of Indians, in 1891 was 13.8; in 1921 it was 5.1.

For the continental United States of America the percentage of illiteracy was 20 in 1870; 17 in 1880; 13.3 in 1890; 10.7 in 1900; 7.7 in 1910; and 6 in 1920. The gains in Canada and the United States were made while both countries were subject to a considerable influx of immigrants, a high percentage of whom were illiterate.

Among the outlying parts of the United States the reductions in the decade 1910 to 1920 were: In Porto Rico from 66.5 to 55 per cent, in the Canal Zone from 7.7 to 5.7, in Alaska from 26.5 to 24.8, and in Hawaii from 26.8 to 18.9. An increase in American Samoa from 4 to 4.2 per cent is reported.

⁶ Official Yearbook of the Commonwealth of Australia. No. 17, 1924. Commonwealth bureau of census and statistics, Melbourne.

⁷ Report of results of census of population of Dominion of New Zealand taken for the night of Oct. 15, 1916. Malcom Fraser, Government statistician. Wellington, 1920.

The number of persons in Mexico reported by the census of 1900 as being unable to read and write was 11,261,669, out of a total of 13,441,257 for which the information was obtained, making a percentage of illiteracy of 83.8. By approximately the same criteria the number of illiterates in 1920 was 8,208,454 out of a total of 13,177,368, or 62.2. In the period from 1893 to 1921, Guatemala reduced its percentage of illiteracy from 88.63 to 86.82.

The percentage of the total population of Cuba that could read was 19.2 in 1861, 27.7 in 1887, 36 in 1899, 40.9 in 1907, and 47.6 in 1919.

Per cent of literacy shown by 6 censuses in Jamaica ¹

Year	Read and write	Read only	Total	Per cent that can read or write
1861.....	50,826	68,333	119,059	31.3
1871.....	71,074	81,398	152,472	35.0
1881.....	115,418	115,750	231,168	45.7
1891.....	177,795	114,493	292,288	52.5
1911.....	338,263	108,515	446,778	62.3
1921.....	389,376	65,657	455,033	60.9

¹ Annual general report of Jamaica, together with the departmental reports for 1921. Government Printing Office, Kingston, 1922.

South America.—By the census of 1890, the per cent of the total population in Brazil that could neither read nor write was 85.2. In 1920 it was 75.5. The number of illiterates among the conscripts to the army in Argentina shows a steady decrease from 42.28 per cent in 1913 to 19 per cent in 1924. For four censuses the percentages of the population in Chile that could not read were 71.1 in 1885; 68.1 in 1895; 60 in 1907; and 49.7 in 1920. Between the dates 1891 and 1926 the percentage that could not read in the total population of Venezuela was reduced from 83 to about 73.5. From 1881 to 1921 the change in British Guiana was from about 65 per cent illiteracy to 50.5.

This general progress in the elimination of illiteracy has been made while the population of the world was increasing at the rate of about 150,000,000 a decade.

CHAPTER VII

Illiteracy and Age Groups

The educational inventory.—By the process of collecting, compiling, and analyzing the illiteracy figures for each age group, a nation may at one census take a very significant inventory not only of the present illiteracy status of its people but of the results of its educational policies for 80 or more previous years. The following tables (pp. 65 and 67), computed from the official returns of 1920 for Bulgaria and Spain, are examples of relatively complete and very valuable data regarding illiteracy in different age groups. These countries are selected because they are among the few for which such returns are published, and, furthermore, the histories of the two are strongly contrasting in their main features.

Bulgaria is comparatively young as an independent nation. "At the beginning of the nineteenth century the existence of the Bulgarian race was almost unknown in Europe, even to students of Slavonic literature."¹ The country was invaded by Russia in 1810 and 1828. The Bulgarian language is spoken by a very small per cent of the world's population. Books written in modern Bulgarian began to appear about 1824 and Bulgarian schools about 1835. This new national spirit was engaged in a constant struggle with Greek influence until 1872. In 1878 the country was freed from about five centuries of Turkish rule and a year later formed its own government as a principality. In 1885 it became an independent kingdom. Throughout the century the Bulgarian people have been consistently developing a national solidarity and pride.

Spain is one of the old, long-established independent national entities. It began the century from 1820 to 1920 on a high level and with its own distinctive culture, a culture that had then been carried by Spanish migrants to many other sections of the world, notably Central and South America and parts of Africa. Spanish is one of the 8 or 10 most important literary and scientific languages. The century was for Spain a time of comparative peace, but the people did not make great gains in literacy.

¹ Encyclopædia Britannica, 11th ed., Vol. IV.

TABLE 5.—*Distribution by age groups of literates (can read and write) in Bulgaria, census of December 31, 1920*

Age	Number of persons	Per cent of total population	Literates	Per cent of literacy
1	2	3	4	5
Less than 5 years.....	495,913	10.23	None	None
5.....	118,260	2.44	29	0.02
6.....	149,715	3.09	2,295	1.53
7.....	104,281	2.15	23,445	22.48
8.....	136,479	2.82	67,105	49.17
9.....	109,840	2.27	74,292	67.64
5 to 9, inclusive.....	618,575	12.77	167,166	27.02
10.....	146,174	3.02	97,364	66.61
11.....	106,358	2.19	81,125	76.28
12.....	142,596	2.94	97,862	68.63
13.....	121,476	2.51	87,573	72.09
14.....	125,013	2.58	88,620	70.89
10 to 14, inclusive.....	641,617	13.24	452,544	70.53
15.....	125,757	2.59	83,857	66.68
16.....	116,234	2.40	79,184	68.12
17.....	105,551	2.18	75,141	71.19
18.....	111,616	2.33	74,879	67.09
19.....	79,627	1.65	59,227	74.38
15 to 19, inclusive.....	538,785	11.15	372,288	69.10
20.....	129,364	2.67	82,803	64.01
21.....	65,172	1.34	48,045	73.72
22.....	85,818	1.77	58,103	67.70
23.....	80,242	1.65	56,204	70.04
24.....	73,635	1.52	50,941	69.18
20 to 24, inclusive.....	434,231	8.95	296,096	68.19
25.....	103,212	2.13	56,309	54.56
26.....	71,254	1.47	45,803	64.28
27.....	55,783	1.16	36,590	65.59
28.....	74,604	1.54	43,250	57.97
29.....	38,606	.79	25,777	66.77
25 to 29, inclusive.....	343,459	7.09	207,729	60.48
30-35.....	300,788	6.26	162,086	54.09
35-40.....	311,135	6.45	157,030	50.47
40-45.....	225,261	4.65	96,043	42.64
45-50.....	191,472	4.00	73,764	38.52
50-55.....	178,671	3.70	60,716	33.98
55-60.....	153,548	3.17	45,033	29.33
60-65.....	137,260	2.85	27,302	19.89
65-70.....	95,807	1.97	17,049	17.80
70-75.....	81,597	1.68	9,698	11.89
75-80.....	39,074	.82	4,835	12.37
80-85.....	33,184	.69	2,560	7.71
85-90.....	11,441	.24	956	8.36
90-95.....	8,057	.17	398	4.94
95-100.....	2,809	.06	141	5.02
100 and over.....	2,161	.04	57	2.64
Age unknown.....	2,126	.04	854	40.17
Total.....	4,846,971	-----	2,154,945	44.46

Bulgaria.—The table for Bulgaria gives the absolute figures and percentages of the population, and the absolute figures and percentages of those who can read and write (literates) by 1-year periods from 5 to 30 years of age, and by 5-year periods from 30 to 100. Note the composition of the literate group (column 5). None of them is under 5 years of age. Between the ages of 5 and 9, inclusive, the per cent of literacy mounts from 0.02 to 67.64. Naturally it should

mount rapidly in those ages. The children are beginning to go to school; at 7 the compulsory education law becomes operative. Between 10 and 14, inclusive, the per cent of literacy fluctuates from 66.61 to 70.89. If the school system is highly effective and the compulsory education laws enforced, one would expect the per cent for these ages, 10 to 14, to continue mounting rapidly, rather than being on a comparative level, until it reached from 95 to 98 per cent for the age of 15. Compulsory education laws, other than those for continuation schools, usually cease to operate after the child is 14, and the per cent no longer rises to any great extent.

Note again in the data in column 5 that the per cent of literacy is very low in the age group 90 to 100 and rises fairly regularly and rapidly to 76.28 per cent in the group 11 years of age in 1920. A considerable number of elements affect these percentages and the increases. The actual part which each element plays can not be ascertained. The Bulgarians who were from 90 to 100 years of age in 1920 were from 1 to 10 years old in 1830. In 1830, the 1-to-10-year group made up about 25 per cent of the population. In 1920 the remaining members of that group were 0.23 per cent of the total. The loss had been by death, migration, and change of national boundaries. In order to know exactly the effect which the growing school system had on the per cent of literacy, one would need to know and take into consideration the per cent as it was among those now no longer living, those that had gone into other countries by migration or change of boundaries, and any immigrants to Bulgaria. In general, the death rate is believed to be somewhat lower among literates than among illiterates, and illiteracy is thought to be slightly less among migrants than it is among those that stay in their native countries, so it would seem that these two factors are in part compensatory. Undoubtedly the increase in literacy from about 5 per cent among those 90 to 100 years of age to 76 per cent among those 11 years of age is roughly representative of a century of progress in education among the Bulgarian people.

The per cent of literacy in Bulgaria is fairly constant, about 68 to 70, among the people in the age group 15 to 25. After 25 there is a sharp falling off with the net result that the average of literacy among those 25 to 29 years of age, inclusive, is 60.48 per cent as against 68.19 for those 20 to 24, inclusive. Among those 30 years of age and over the decrease in percentage of literacy is consistent and rapid as the age increases; the greatest change, 10 per cent, is shown by the age group 60 to 65.

The lowered percentages of literacy at the ages of 20, 25, 30, 40, and 60 are in great part due to the tendency of all people to give their ages in numbers ending with 0 or 5. This is especially true of illiterates

and shows itself in the markedly increased percentage of illiteracy reported at those ages.

Spain.—Per cents of literacy under two definitions, “Can read only” and “Can write,” and of illiteracy under the definition, “Can not read,” are given in Table 6, page 67 by age groups for Spain. Note in column 4 that in the age groups 5 to 15 years, inclusive, the increase in the per cent of “Can write” people is gradual, 12.7 to 58.9. If the school system took a firm hold on a high percentage of the children, the increase should and would be sharp and great. Reading from the other end of the age scale, the people in Spain that were from 90 to 100 years of age in 1920 were from 1 to 10 in 1830; those that were 80 to 90 in 1920, were from 1 to 10 in 1840; those that were 70 to 80 in 1920, were from 1 to 10 in 1850. The percentages of literacy among the remaining members of those groups are respectively 28.8, 32.3, and 37.7. The highest per cent shown by any age group in Spain is 64.4 among those of 21 to 25 years, people that attended school in the decade from about 1900 to 1910. The general change in the past 50 years in Spain has been a steady but rather slow increase in the direction of greater literacy.

TABLE 6.—Percentages of population and degrees of instruction for different age groups in Spain, census of 1920 ¹

Age groups	Population of given age		Can read only		Can write		Can not read		Not determined	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Less than 5 years of age.....	2, 253, 843	10. 5	1, 418	0. 06	1, 646	0. 07	2, 249, 439	99. 8	1, 446	0. 06
5 years.....	460, 193	2. 1	8, 950	2. 0	16, 607	3. 6	433, 950	94. 3	686	. 01
6 years.....	470, 547	2. 2	13, 496	2. 9	59, 600	12. 7	396, 000	84. 1	1, 451	. 3
7 years.....	462, 635	2. 1	15, 255	3. 3	114, 803	24. 8	330, 528	71. 4	2, 049	. 44
8 years.....	486, 098	2. 2	14, 246	2. 9	163, 173	33. 6	305, 936	63. 0	2, 043	. 42
9 years.....	450, 578	2. 1	10, 553	2. 3	189, 745	42. 1	248, 204	55. 09	2, 076	. 46
10 years.....	498, 511	2. 3	10, 363	2. 08	233, 788	46. 9	252, 275	50. 6	2, 085	. 42
11 to 13 years.....	1, 355, 051	6. 3	17, 982	1. 3	736, 090	54. 3	595, 272	43. 9	5, 707	. 42
14 and 15 years.....	888, 729	4. 2	8, 348	. 94	523, 519	58. 9	352, 763	39. 7	4, 094	. 45
16 and 17 years.....	841, 256	3. 9	6, 630	. 78	518, 802	61. 7	311, 7 3	37. 05	4, 111	. 48
18 to 20 years.....	1, 224, 293	5. 7	8, 783	. 72	760, 628	62. 2	447, 876	36. 5	7, 006	. 57
21 to 25 years.....	1, 761, 043	8. 2	11, 403	. 65	1, 133, 725	64. 4	604, 614	34. 3	11, 301	. 64
26 to 30 years.....	1, 644, 223	7. 7	10, 269	. 62	993, 742	60. 4	631, 314	38. 4	8, 898	. 54
31 to 35 years.....	1, 349, 209	6. 3	8, 878	. 65	815, 036	60. 4	518, 419	38. 4	6, 876	. 5
36 to 40 years.....	1, 375, 795	6. 4	9, 729	. 7	771, 581	56. 0	587, 495	42. 7	6, 990	. 58
41 to 45 years.....	1, 139, 004	5. 3	8, 144	. 71	643, 817	56. 5	481, 915	42. 3	5, 128	. 45
46 to 50 years.....	1, 156, 137	5. 4	8, 428	. 72	604, 441	52. 2	538, 043	46. 6	5, 233	. 45
51 to 55 years.....	865, 657	4. 5	6, 331	. 73	454, 321	52. 5	401, 268	46. 3	3, 724	. 43
56 to 60 years.....	930, 549	4. 3	6, 754	. 72	429, 412	46. 2	490, 159	52. 6	4, 224	. 45
61 to 70 years.....	1, 164, 324	5. 4	8, 489	. 73	510, 107	43. 8	640, 191	54. 9	5, 537	. 47
71 to 80 years.....	456, 604	2. 1	3, 515	. 77	172, 249	37. 7	277, 975	60. 9	2, 865	. 63
81 to 90 years.....	79, 483	. 38	688	. 87	25, 714	32. 3	52, 384	65. 9	697	. 88
91 to 100 years.....	6, 808	. 03	98	1. 4	1, 962	28. 8	4, 562	67. 1	186	2. 7
Over 100.....	279	. 002	12	4. 3	88	31. 6	153	54. 8	26	9. 3
Age unknown.....	68, 885	. 33	998	1. 5	29, 510	42. 8	17, 967	26. 1	20, 410	29. 6
Total.....	21, 389, 842	99. 94	199, 754	. 9	9, 904, 824	46. 3	11, 170, 415	52. 2	114, 849	. 6

¹ Computed from Anuario Estadístico de España, Año XI. 1924-25.

Indices of literacy and illiteracy.—The per cent of literacy for each age group in the tables of data for Bulgaria and Spain is an index of literacy for that particular group. Working out from the data indices for other combinations of age groups or for the total population is a simple arithmetical process. Computing indices for each of these countries for 1, the total population; 2, the population 5 years of age and over; and 3, the population 10 years of age and over, the results are:

Age group	Index of literacy	
	Bulgaria	Spain
	<i>Per cent</i>	<i>Per cent</i>
Total population.....	44.46	46.3
5 years of age and over.....	49.5	51.2
10 years of age and over.....	53.25	55.6

None of these three indices is essentially the best one. Each has a definite value for certain purposes. The economist interested in the more productive and less productive groups of a nation may prefer the figure for the total population. The school administrator, interested in knowing what the enrollment should be and how promptly the school is meeting the situation for which it was created, will wish the data for 5 years of age and over and especially for the ages between 5 and 15. The worker in the field of eradicating adult illiteracy will make better use of the index for 10 years of age and over and more particularly the ages beyond which most persons do not attend any school. For purely comparative purposes, as among nations, that for 5 years of age and over is in many ways the most convenient. That for 10 years of age and over is more logical since at 10 most children will have been in school three or four years and should have learned to read and write.

Of course all of these indices are much less valuable than the complete data by age groups. From the latter, the worker in any field—for whom statistics of illiteracy are valuable—may take those that are most significant from his point of view.

The “Can write” groups.—The “Can write” groups, as now reported by the national censuses, include persons of all stages of literacy attainment, from those who can barely sign their names to those of the highest learning. In addition to giving data by age groups, the time has come when it seems essential for most countries to make at least three, and possibly more, divisions of the “Can write” group and report, for example, those who have completed an elementary school, a secondary school, or a university. The national inventory will then be more complete and infinitely more valuable.

